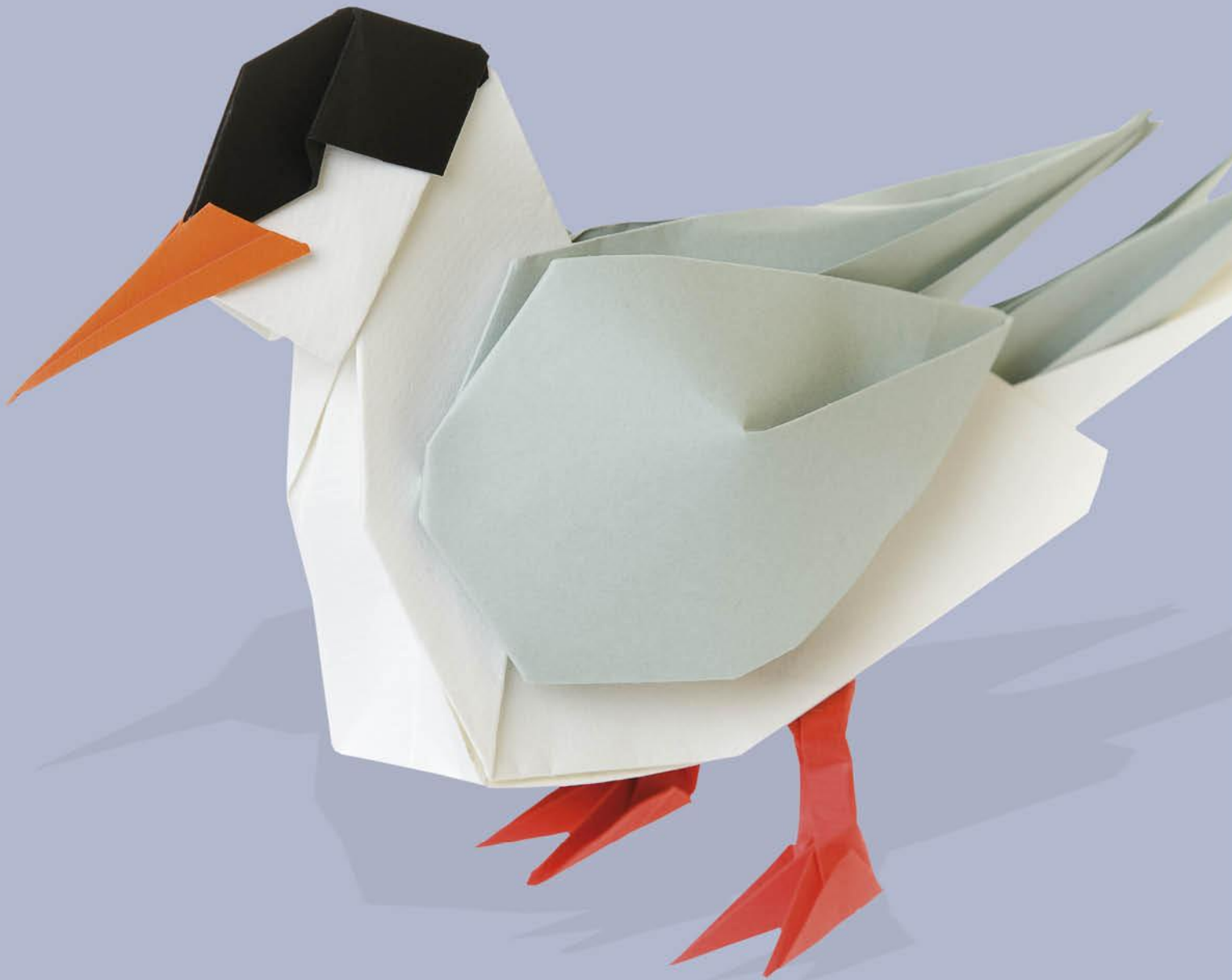


Getting Started Guide



AS and A Level Geography

Pearson Edexcel Level 3 Advanced GCE in Geography (9GE0)

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

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1. Introduction

This Getting Started Guide provides an overview of the new AS and A level Geography specifications, to help you to get to grips with the changes to content and assessment, and to help you to understand what these mean for you and your students.

1.1 Key features of our AS and A level Geography specifications

The specification and sample assessment materials (SAMs) have been developed in consultation with hundreds of fellow teachers who, in focus groups and face-to-face interviews, have provided feedback at each stage. This has enabled us to redesign a qualification that is engaging and relevant to today's geographers, and will prepare them to succeed in their chosen pathway.

Drawing on feedback from all parts of the geography education community, the 2016 AS and A level Geography specifications have been built on the following key features. We used the outcomes of our research to design our approach to the new AS and A level specifications.

1. We've built upon the contemporary, issues-based approach that teachers and students love.

Geography matters. That is why our qualifications continue to focus on fundamental processes and environments, but also reflect the world around us. We are the only awarding body to integrate compulsory content and popular, familiar themes together – such as linking the water and carbon cycles to water insecurity and energy security – to ensure that our courses are relevant and engaging. This way, students can build on what they have learned at GCSE and what they see in the world today, and gain the knowledge, skills and understanding vital to success at AS and A level – and beyond.

2. We've developed a manageable and meaningful approach to fieldwork.

To ensure you and your students can focus on exploring geography in practice, we've taken the guesswork out of fieldwork. As part of supporting success in fieldwork, we're working with the Field Studies Council, Geographical Association (GA) and Royal Geographical Society (RGS) to create a host of free support and guidance on best practice. We're also the awarding body to go that step further and give practical examples of how to integrate teaching the required geographical and fieldwork skills into your lessons.

At AS level we've prescribed fieldwork environments in the specification so that students can confidently apply what they know to exam questions on unfamiliar fieldwork contexts. When it comes to the A level Independent Investigation, students can further explore a part of the course that fascinates them.

3. We've created exams that give every student the chance to succeed.

Alongside a straightforward assessment structure, our defined set of command words in exams are used consistently to assess particular skills and link to the same mark tariffs in order to make clear what students are being asked to do. With exam questions that ramp in demand throughout each section, our papers are accessible and encourage students to engage with every element of assessment.

4. We've designed straightforward specifications that you can shape to suit you and your students.

Our specifications are designed for you to make your own. To support shared teaching and co-teaching, there is identical content across AS level and the first year of A level, and areas of physical and human geography mirror each other across the first two exam papers. Our synoptic themes also help students to connect common concepts between topics.

Whichever teaching format you follow, detailed specification content is there to give you confidence in how much depth to cover, and specific examples of place contexts demonstrate the case studies you can use to bring the subject to life. There is also the freedom to choose subtopics, so that you can focus on the content you know will best engage and suit your students.

5. We've focused on the skills at the heart of being a good geographer.

To help you create coherent courses and support your students in becoming confident geographers, we've taken the unique approach of signposting precisely how and where quantitative and qualitative skills can be integrated into lessons. That way, you can be confident that your students will develop and apply key skills to what they are learning, in readiness for exams, fieldwork and further study.

What's more, our courses are designed to enable synopticity, to encourage your students to see 'the bigger picture', and to link geographical processes, themes, ideas and concepts together across topics.

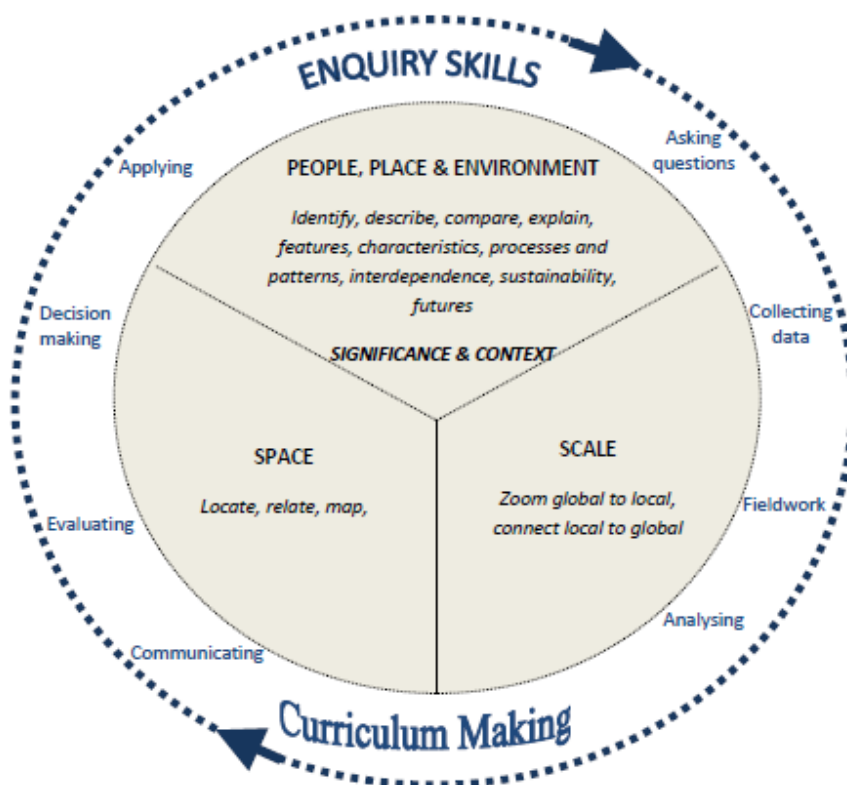
1.2 Our approach to 'thinking geographically'

The Geographical Association has encouraged geography teachers to remember that 'geographical thinking' is very different to everyday thinking. Geographers make sense of the world by looking through a 'geographical lens', and this approach characterises the GCSE, AS and A levels. The diagram below shows an approach to geography that characterises our approach to geographical thinking.

The use of enquiry questions, key ideas and detailed content help to create a framework for students' learning. It encourages them to identify geographical questions, assimilate concepts, analyse information, and communicate what they have learnt using a variety of geographical skills, whether these be mathematical, geospatial, or using written communication and developing cogent thinking.

We are keen that students develop a holistic understanding of geography, and our specifications encourage students to make links between different geographical ideas and concepts through synoptic themes (Players, Attitudes and actions, and Futures and uncertainties), which are embedded within the specification content. The geographical skills they need for exams, fieldwork and future study are signposted throughout the specification so that you can teach them in relevant places throughout the course.

2. What's changed?



(Source: Geographical Association, 2011)

In addition to the skills learnt at GCSE, students are required to develop a range of geographical skills throughout the course of study. This includes quantitative skills (mathematical and statistical), qualitative skills (interviews, creative and social media, geographical representations), and geospatial skills (which might be more quantitative in nature: for example, geographical information systems (GIS); or qualitative: for example, interpreting photos, sketches and drawings).

The full list of geographical skills can be found in Appendix 1 on page 56 of the AS level specification, and pages 90–91 of the A level specification. These skills may be assessed across any of the examined components. Teachers are encouraged to develop students' confidence in using these skills as much as possible in lessons. Students should become familiar with drawing inferences and conclusions from their findings, and not merely complete skills tasks as ends in themselves.

Example

Topic 2 Glaciated Landscapes and Change

- 2A.4b: Glacial mass balance system and the relationship between accumulation and ablation in the maintenance of equilibrium. (3) The importance of positive and negative feedback.
- In the **integrated skills** box at the end of the subject content for this topic, geographical skill (3) is described as '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'.

Fieldwork skills

Students are required to demonstrate their ability to use a range of fieldwork skills during the AS level and A level courses. The full list of fieldwork skills is on page 78

of the AS level specification and on page 91 of the A level specification, and replicates the DfE content guidance for AS and A level GCE Geography.

Thinking geographically: mathematics and statistics skills

We're committed to supporting you to tackle barriers to progress relating to mathematics and statistics, which is important for progression beyond A level. To achieve this, our free topic guides will include guidance on integrating mathematics skills as well as activities that relate to the specification content and are based on the proven approach of Pearson Maths. Our free support will help students to build confidence to master problem-solving and reasoning activities that model mathematics and statistical concepts in a geographical context. For example, the AS and A level Maths Guide for Geographers will identify what students have learnt in KS3 and KS4 Maths, both at foundation and higher tier. This will help geography teachers to use the same language and techniques and thereby build on students' existing knowledge. The guide will also identify areas where students may have little or no formal knowledge from GCSE Maths lessons (for example, many of the AS and A level statistical tests). There will also be supporting professional development events produced in collaboration with the RGS.

1.3 Supporting you in planning and implementing the qualification

There is a package of support to help you to plan and implement the new specification.

- **Planning:** In addition to the 'Planning' section in this guide (see Section 3), we will provide AS and A level course planners and schemes of work that you can adapt to suit your department.
- **Understanding the standard:** We will supply you with 'real life' exemplars that have been written by students, with examiner commentaries.
- **Tracking learner progress:** Our well-established and popular ResultsPlus service will help you to track student progress, as will our Mock Analysis service.
- **Personal, local support:** Our subject adviser, Jon Wolton, is always on hand to help you. He can be contacted at TeachingGeography@pearson.com. You can sign up to receive emails from Jon and be kept up to date about training events, news and government announcements, deadlines and much more.
- **Teaching and learning support:** We will have a programme of teaching and learning support to help you to implement the new specification, particularly with new and unfamiliar content and skills. Additionally, we aim for our qualifications to be supported by high-quality resources produced by a range of publishers, including Pearson, and we'll be working with publishers who are looking towards getting their resources endorsed.
- **Free Getting Ready to Teach events:** Online or face to face, our free events will be available during the spring/summer 2016 and will be available for booking in due course.

Course materials, along with teaching and learning support, are available on Pearson's AS and A level 2016 Geography qualification pages:

<http://qualifications.pearson.com/en/qualifications/edexcel-a-levels/geography-2016.html>

2. What's changed?

2.1 How have AS and A level changed?

Changes to AS and A level Geography qualifications

From September 2016, A level Geography will be a linear qualification. This means that all examinations must be sat and the Independent Investigation submitted at the end of the course. More information about the implications of the move to linear assessment is given on page 34.

From September 2016, AS level Geography will be a stand-alone qualification. This means that it cannot be used to contribute towards an A level Geography grade. More information about the relationship between AS level and A level is given on page 18.

Changes to AS and A level Geography content requirements

The content requirements for AS and A level Geography have been revised. All awarding organisations' specifications for AS and A level Geography must meet these criteria.

- Revised compulsory core content themes set by the Department for Education:
 - **Water and Carbon Cycles:** These core themes are linked to the issues of Water Security and Energy Security so these topics have immediate relevance for students
 - **Landscape Systems:** Within this core theme, either Glacial Landscapes or Coastal Landscapes are studied as systems where processes of erosion, transport and deposition interact with geology to produce distinctive landscapes, which are changed by human activity.
 - **Global Systems and Global Governance:** These themes are explored at A level only and there is a choice of either Health, Human Rights and Intervention, or Migration, Identity and Sovereignty.
 - **Changing Place, Changing Places:** Within this core theme, students must carry out two in-depth place studies including the local place within which students live/study, and a contrasting place either in this country or abroad so that they develop wider knowledge and understanding about how places change because of regional, national, international and global influences.
- There are clearer expectations for developing geographical skills.
- The requirements for carrying out and assessing fieldwork have increased:
 - At AS level, two days of fieldwork must still be carried out in relation to human and physical geography.
 - At A level four days of fieldwork must be carried out in relation to both human and physical geography, and the data from this may, but does not have to, be used as part of a student's Independent Investigation.
 - Fieldwork at A level will be assessed by submitting a non-examined Independent Investigation, the topic of which could come from any part of the compulsory or optional specification content.

Changes following consultation

Pearson has carried out extensive research since 2012, which has helped to shape our distinctive specification. The following groups and individuals were involved:

- teachers from schools across the country in face-to-face interviews, phone interviews, focus groups and surveys
- an External Subject Advisory Group, including representatives from the teaching community and universities
- interviews with the Royal Geographical Society, Geographical Association and Royal Meteorological Association.

2.2 Changes to Assessment Objectives

The AS and A level Geography Assessment Objectives have been revised. The Assessment Objectives are the same for both AS and A level.

2008 AS and A level Geography specifications (last assessment, 2018)			
Students must:		AS level	A level
AO1	Demonstrate knowledge and understanding of the content, concepts and processes.	60%	40%
AO2	Analyse, interpret and evaluate geographical information, issues and viewpoints and apply understanding in unfamiliar contexts.	24%	26%
AO3	Select and use a variety of methods, skills and techniques (including the use of new technologies) to investigate questions and issues, reach conclusions and communicate findings.	16%	34%

New AS and A level 2016 Geography specification (first assessment, AS 2017 and A level 2018)			
Students must:		AS level	A level
AO1	Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scale	40%	34%
AO2	Apply knowledge and understanding in different contexts to interpret, analyse and evaluate geographical information and issues	35.6%	40%
AO3	AO3 Use a variety of relevant quantitative, qualitative and fieldwork skills to: <ul style="list-style-type: none"> • investigate geographical questions and issues • interpret, analyse and evaluate data and evidence 	24.4%	26%

2. What's changed?

	AS level (2 exam components)	A level (4 exam components)
Paper 1 AS level: 8GE0/01 A level: 9GE0/01	Area of study 1 Topic 1: Tectonic Processes and Hazards Topic 2: Landscape Systems – students choose either 2A: Glaciated Landscapes and Change or 2B: Coastal Landscapes and Change	Area of study 1 Topic 1: Tectonic Processes and Hazards Topic 2: Landscape Systems – students choose either 2A: Glaciated Landscapes and Change or 2B: Coastal Landscapes and Change Area of study 3 Topic 5: The Water Cycle and Water Insecurity Topic 6: The Carbon Cycle and Energy Insecurity
Paper 2 AS level: 8GE0/02 A level: 9GE0/02	Area of study 2 Topic 3: Globalisation Topic 4: Shaping Places – students choose either 4A: Regenerating Places or 4B: Diverse Places	Area of study 2 Topic 3: Globalisation Topic 4: Shaping Places – students choose either 4A: Regenerating Places or 4B: Diverse Places Area of study 4 Topic 7: Superpowers Topic 8: Global Development and Connections – students choose either 8A Health, Human Rights and Intervention or 8B Migration, Identity and Sovereignty
Paper 3 A level only: 9GE0/03		Synoptic Investigation Based on a geographical issue within a place-based context that links to the three synoptic themes (Players, Attitudes and actions, and Futures and uncertainties) and is rooted in two or more of the compulsory content areas. A resource booklet provided in the examination will contain information about the geographical issue. Questions will be based on the use of this material along with knowledge and understanding from other parts of the source.
Coursework: Independent Investigation A level only: 9GE0/04		A student-defined question or issue, relating to the compulsory or optional content. The topic may relate to any aspect of geography contained within the specification. The student's investigation will incorporate fieldwork data (collected individually or as part of a group) and own research and/or secondary data

2.3 Changes to specification content

Key concepts are formally included in the specification where appropriate in topics. These are listed here for ease of reference and should be taught and considered in both core and non-core contexts. They could form a 'Tool Kit' of key terms or concepts, which students apply as appropriate as they study topics. The following concepts are studied in AS and A level Geography:

- Causality
- Systems
- Equilibrium
- Feedback
- Inequality
- Representation
- Identity
- Globalisation
- Interdependence
- Mitigation and adaptation
- Sustainability
- Risk, resilience and thresholds.

What is new to AS level?

- Glaciation is now an optional topic AS level.
- Specific skills have been identified for each topic and should be taught alongside the content as appropriate. These will be examined in Papers 1 and 2.
- The two Shaping Places topics are a new theme to AS level, in response to the DfE core content requirement of Changing Place, Changing Places. However, much of the content from Rebranding Places is relevant.
 - New concepts have been introduced which relate to representation, reality and image of places in different sources of discursive media (music, photography, film, art, literature), particularly their interpretation in the context of proposed changes to those places.
 - These topics require students to carry out a detailed investigation of the place where they live and to contrast this with another place. See page 28 for further explanation. They need to consider the global and international factors that have changed these places, the lives and identity of people who live there and their attachment to them.

What is new to A level?

As well as the bullet points above, A level students will study:

- The Water Cycle (Topic 5) and Carbon Cycle (Topic 6). These are integrated with water and energy security and management approaches that were present in the previous specification. Although management and security issues are familiar, content about water and carbon cycle processes is new.
- Global Development and Connections (Topic 8) form a new theme but create links between familiar material from the previous specification. There are two options within this topic, 8A: Health, Human Rights and Intervention, or 8B: Migration, Identity and Sovereignty (see pages 31 and 32).
- The Independent Investigation (coursework) is to be completed individually by each student, and forms 20% of the A level. This is to be done in

2. What's changed?

class/at home, marked by teachers and submitted to the exam board. Further details are available in section 6.

- Specific skills have been identified for each Topic and should be taught alongside the content as appropriate. These will be examined in Papers 1, 2 and 3 and the Independent Investigation at A level.

What is similar to the 2008 Edexcel specification?

- Much of Tectonic Hazards (Topic 1) and Globalisation (Topic 3) will be familiar from the 2008 AS Paper 1 (6GE01). The compulsory content about Tectonics now blends current ideas about geophysical hazards with previously optional material about Tectonic Activity and Hazards from the 2008 A2 Paper 4 (6GE04). Note that although Tectonics is not a compulsory element of the DfE content guidance, research with many different stakeholders highlighted the importance and popularity of Tectonics in the 2008 A level.
- Coastal Landscapes and Change (Topic 2B) has overlap with Crowded Coasts from the 2008 AS Paper 2 (6GE02). In Coastal Landscapes, the definition of coastal zones has been widened, and more detailed knowledge about coastal landforms and processes is required.
- Shaping Places (Topic 4A and B) has overlap with both Rebranding Places and Unequal Spaces from the 2008 AS Paper 2 (6GE02), and material from the Roots, and On the move sections from 6GE01.
- Several themes from the 2008 A2 Paper 3 (6GE03) remain:
 - Topic 5: The Water Cycle and Water Insecurity
 - The hydrological cycle and water storage, over-abstraction of water resources, the role of climate change in altering the movement of water, the mismatch between water supply and demand and causes of water insecurity, economic scarcity and potential for conflicts, technological fixes as well as more sustainable strategies of water conservation, together with integrated drainage management and water sharing treaties.
 - Topic 6: The Carbon Cycle and Energy Security
 - Consumption of energy resources and the energy mix, energy players, energy pathways, fossil fuel and renewable energy resources, and radical technologies.
 - Topic 7: Superpowers
 - Characteristics of superpowers and their growth over time; their influence economically, politically and culturally; their role in international decision making; the environmental consequences of superpower actions as well as the resulting tensions and the implications of this for the future global balance of power.
- Themes from the 2008 AS Paper 1 (6GE01) and A2 Paper 4 (6GE04) are included in Topic 8, in both Option 8A Health, Human Rights and Intervention and Option 8B: Migration, Identity and Sovereignty.
 - These include measures of development, the role of inter-government organisations, evaluation of the success of the millennium development goals, the causes and consequences of global migration (including cultural tensions) and tensions between BRIC countries and the divides that exist in 'failed states'.

What has been removed from AS level and A level?

- Hydro-meteorological hazards and climate change have been removed as stand-alone topics at AS level. Climate change has been integrated into Area of study 2 (Glaciated Landscapes and Coastal Landscapes) and Areas of study 5 and 6 at A level, in the water and energy topics.
- At AS, Extreme weather is no longer part of the specification. Roots, On the move, and World cities have been removed as separate topics, but some of their concepts remain in Shaping Places.
- Life on the margins, the World of cultural diversity and Consuming the rural landscape (Leisure and Tourism) are no longer part of the specification as stand-alone topics, but elements of each have been incorporated into different areas of study.
- There are no longer any compulsory case studies, but there are suggested places for case studies which are indicated by a 🌐.
- Students will have a reduced choice of questions and will be expected to answer all questions on the paper within their selected options.
- There will no longer be pre-released material, although A level Paper 3 will have a Resource Booklet containing information about the geographical issue being studied in the examination. Fifteen minutes of reading time is suggested as part of Paper 3 (total allowed is 2 hours 15 minutes).
- Unit 4 has been removed. Concepts from these topics remain, but coursework is now included as a stand-alone Independent Investigation worth 20% of the final A level.

2.4 Changes to assessment

Assessment Overview

- There remain three Assessment Objectives for A level Geography, and these are assessed across all four components. These Assessment Objectives are now explicitly part of the mark scheme, particularly for levels-based questions.
- Papers 1 and 2 now assess physical and human geography respectively. Fieldwork is integrated into the assessment for each component at AS level only, whilst at A level it is examined through the Independent Investigation.
- At AS level:
 - The two papers are equally weighted (50% each).
 - Each section may include MCQs, short open, open response and extended response question types.
 - Section A in both papers comprises 28 marks to reflect the weighting of compulsory content (40%). Sections B and C comprise 46 marks each in order to reflect the weighting of optional content (60%).
 - There is a 12-mark question in each of the compulsory and optional topics and these take one of two forms

Either

- Students are required to make links between 'detailed content' from two different key ideas from the specification (as seen in SAMs AS Paper 1, Q1e). This question expects students to draw on knowledge and understanding from EQ1.5 and EQ1.9.

2. What's changed?

Or

- Resources are provided (as seen in SAMs AS Paper 2 in the Blackpool questions 2e and 5e) and students are required to respond.
- In order to assess fieldwork investigations in physical and human environments, Sections B and C will each contain one fieldwork question that totals 18 marks. Fieldwork questions will focus on the assessment of the fieldwork investigation process and will conclude with a 9-mark extended writing question that assesses the student's own fieldwork experience.
- The final question in each of section B and C will be a synoptic 16-mark question that is based on analyzing material in the resource booklet to answer a question based on one of the three synoptic themes.
 - For example, in AS SAMs Paper 1 Tectonics is linked with Glaciated Landscapes in section B, and with Coastal landscapes in section C. In Paper 2, the 16-mark question links Regenerating Places (Section B) and Diverse Places (Section C).
 - This question expects students to use knowledge and understanding from across the course of study, along with information from the resource booklet. For example, AS Paper 2 Q7 about Singapore draws on themes from EQ3.4: 'The global shift has created winners and losers in a globalising world', and EQ4B.3: 'International and global influences that have shaped your chosen places'.
- At A level:
 - Papers 1 and 2 each comprise 30% of the final assessment, Paper 3 comprises 20%, and the Independent Investigation comprises 20%.
 - In Paper 1 Sections A and C are compulsory, whilst Section B examines optional elements.
 - Paper 2 has a compulsory section A, with options for both Section B and Section C.
 - Paper 3 has three sections (A, B and C) all of which are compulsory. These draw synoptically on knowledge and understanding from compulsory content in different parts of the course. There is no pre-release material, but fifteen minutes of recommended reading time is included.
 - Questions in each of these three papers may include skills, short open, open response, and extended response question types.
 - The Independent Investigation provides the opportunity to investigate a question or idea based on specification content. It must include field data (collected individually or with others) but may also include secondary data researched by the student. Findings must then be contextualized, analysed and summarised, and conclusions drawn and communicated by extended writing and data presentation.

What are the main changes to assessment at AS level?

AS level assessment model	
Paper 1 Marks: 90 Weighting: 50% of AS level Time: 1 hour 45 minutes	Section A: Tectonic Processes and Hazards Students answer all questions from Section A
	Section B: Glaciated Landscapes and Change Section C: Coastal Landscapes and Change Students answer either Section B or Section C, and answer all questions in either section
Paper 2 Marks: 90 Weighting: 50% of AS level Time: 1 hour 45 minutes	Section A: Globalisation Students answer all questions from Section A
	Section B: Regenerating Places Section C: Diverse Places Students answer either Section B or Section C, and answer all questions in the chosen section

- Human and physical geography are now assessed through separate exam papers.
- There are changes in command words, particularly at AS and these are fully defined in the glossary in 5.4 below. Students should be prepared to respond to these appropriately through practice examination questions.
- There is an increase in extended writing with two 12-mark and one 16-mark question in each of Paper 1 and Paper 2.
- The synoptic themes of Players, Attitudes and actions, and Futures and uncertainties are likely to be useful particularly in the 12-mark and 16-mark questions. The questions may refer specifically to these themes, but this is not always going to be the case.
- At AS level, students are required to utilize their experience of conducting fieldwork and apply what they have learnt to unseen and unfamiliar contexts, as well as explaining how they carried out their own investigations.
- Students will usually be required to use a calculator in the exam.

2. What's changed?

What are the main changes to assessment at A level?

A level assessment model	
Paper 1 Marks: 105 Weighting: 30% of A level Time: 2 hours 15 minutes	Section A: Tectonic Processes and Hazards Students answer all questions from Section A
	Section B: Glaciated Landscapes and Change or Coastal Landscapes and Change Students answer either Q2 or Q3, and answer all questions in either section
	Section C: Physical systems and Sustainability Students answer all questions from Section C
Paper 2 Marks: 105 Weighting: 30% of A level Time: 2 hour 15 minutes	Section A: Globalisation/Superpowers Students answer all questions from Section A
	Section B: Shaping Places: Regenerating Places or Diverse Places Students answer either Q3 or Q4 in Section B and answer all questions
	Section C: Global Development and Connections: Health, Human Rights and Intervention or Migration, Identity and Sovereignty Students answer either Q5 or Q6 in Section C and answer all questions
Paper 3: Synoptic Investigation Marks: 70 Weighting: 20% of A level Time: 2 hours 15 minutes (including 15 minutes reading time)	The synoptic investigation will be based on a geographical issue within a place-based context that links to the three synoptic themes (Players, Attitudes and actions, and Futures and uncertainties) and is rooted in two or more of the compulsory content areas. Students answer all questions
Paper 4: Independent Investigation (Coursework) Marks: 70 marks Weighting: 20% of A level	This piece of work must be submitted by the deadline date stated on the Pearson website and be accompanied by the required form in Appendix 5. It must include fieldwork skills from those listed in Appendix 2 of the A level specification.

- Human and physical geography are now assessed through separate exam papers.
- A level Papers 1 and 2 have a combination of short answer (4, 6 and 8 mark questions) and extended writing (12 and 20 mark questions). In addition there are short skills questions for 1, 3 and 4 marks.
- Paper 3 is now a synoptic assessment of geographical skills, knowledge and understanding (within a place-based context) from compulsory content drawn from different parts of the course. It contains short open, and open

response questions (4 and 8 marks), and two extended writing questions, worth 18 and 24 marks.

- Students will be required to use a calculator in the exam.
- The Independent Investigation is a vital part of the new teaching and assessment programme (20% of overall marks). It encourages students to gain enjoyment, satisfaction and a sense of achievement as they develop their knowledge and understanding of the subject through investigation of a real geographical issue of their choice.

3. Planning

3.1 Planning and delivering linear AS and A level courses

The AS and A levels in Geography are linear, and all assessments are at the end of the course. The AS Assessment will be at the end of the first year, and the A level Assessment will be at the end of the second year.

The specification has been designed so that the content is clear and that it is manageable for centres to deliver within the guided learning hours over a one-year (AS level) or two-year (A level) period.

There is a range of possible ways of planning the delivery of the specification, and centres will need to decide on a delivery model that suits their teaching methods, school timetables and students.

- There are editable [course planners](#) available from Pearson's AS and A level 2016 Geography webpages.

In particular, careful and long-term planning will be required to maximise the learning opportunities from AS fieldwork in preparation for the written examinations and/or A level fieldwork in preparation for the Independent Investigation.

To aid planning and delivery, the AS level and A level specifications have been designed to be co-teachable. The specification content is the same, but there are differences to the assessment model applied to the specification content. Thought needs to be given to:

- Planning lesson objectives around increasing levels of challenge to reflect both AS level and A level style questions.
- Setting aside time for AS students to prepare for the fieldwork exam questions and revise in time for the exams in May of the first year.
- How to run AS level fieldwork so that students can either sit an exam or apply the skills to Independent Investigation. Running fieldwork for all students in Year 12 might help to introduce A level students to different techniques that they might apply to their Independent Investigation.
- Whether or not to enter students for AS examinations. Cost may be an issue, but some centres may want to use it as a 'high stakes' mock, to motivate students, or to provide a complete one-year course for those not continuing with the full A level. For example, students who decide to pursue a different Level 3 programme, overseas students studying a one year course in the UK, or those who wish to take up an apprenticeship may find the AS course and examination appropriate.

There are implications for planning a linear course,

- A decision needs to be made about whether AS exams are to be taken. This is not compulsory, as AS is a stand-alone qualification. Marks obtained are not transferred to A level.
- It would be logical to teach Topics 1 to 4 in the first year, and 5 to 8 in the second year, but centres may wish to explore other options. Section 3.4 below suggests two delivery models. Of course revision time to return to first year content will be required at end of the second year. Skills development over two years needs to be planned.

3.2 Suggested resources

Below is a list of free support for Edexcel AS and A level Geography 2016:

- Getting Started Guide for AS and A level Geography
- Editable two-year AS and A level course planners
- Mapping guides comparing the 2016 and 2008 AS and A level Geography specifications
- Editable schemes of work for every topic
- Topic guide for every topic
- Additional specimen papers
- Student exemplars with commentary
- Mocks marking training
- A teacher guide to planning high-quality fieldwork
- Case studies of good fieldwork practice
- Field study worksheets
- Marked examples of the coursework
- An optional investigation title approval service
- Free Getting Ready to Teach training events on delivering the AS and A level courses
- Practical guidance on planning high-quality fieldwork at our Getting Ready to Teach events.

A range of published resources will provide comprehensive support for the Edexcel AS and level Geography specifications. As well as providing engaging materials, the resources will help your students to tackle new, more demanding content and develop the geographical, mathematical and literacy skills that are at the heart of being a good geographer. Details of endorsed resources from all publishers will be available at www.edexcel.com/resources. You do not need to purchase resources to deliver our qualification.

3.3 Co-teaching AS and A level

The content for Topics 1, 2, 3 and 4 is the same whether AS (end of Year 12) or A level (end of Year 13) exams are being taken. Candidates for either exam can be taught together. Both AS and A level students have to conduct physical and human fieldwork. AS students must carry out two days of fieldwork in Year 12. A level students continuing into Year 13 must conduct two further days in either Year 12 or Year 13. Allow revision time for AS students in the summer term of Year 12. Those not taking AS could start planning for the Independent Investigation if in the same class, or use this time to develop exam skills for the A level paper.

- The exam question styles and levels of difficulty are slightly different for AS and A level. Examples of these are provided in the table below. An important distinction is that A level will never include any assessment of 'knowledge in isolation' or 'recall' (i.e. marks awarded solely for recalling facts), hence the absence of command words such as 'Describe' and 'Identify' in the A level command words identified on page 50.
- AS optional topics for both Paper 1 (Glaciation or Coasts) and Paper 2 (Regenerating Places or Diverse Places) will contain skills questions linked to fieldwork. The A level papers do not have this type of question.

3. Planning

- AS and A level papers will have questions based on maps, graphs, satellite images, photos, GIS output, data, extracts from social media, etc.
- AS papers have a final 20-mark synoptic question linking the different parts of the paper. Paper 1 has a question linking Tectonics and either Glaciation or Coasts. Paper 2 has a question linking Globalisation and either Regenerating Places or Diverse Places.

Specification detail	AS level-style question	AS and A level-style question	A level-style question
Topic 1 Tectonic Hazards			
1.5 Tectonic hazard profiles are important to an understanding of contrasting hazard impacts, vulnerability and resilience.	*Explain two strategies that are used to modify vulnerability to (tectonic / volcanic) hazards (4)	1. (e) Assess the significance of earthquake hazard profiles in relation to the effectiveness of management strategies. (12)	*Study Figure x. Explain how speed of onset increases hazard risk (4)
1.6 Development and governance are important in understanding disaster impact and vulnerability and resilience.	*Explain two ways in which governance helps reduce tectonic disaster impact (4)	*Explain how the impact of tectonic disaster can be reduced (4)	1. (b) Assess the importance of governance in the successful management of tectonic mega-disasters. (12)
Topic 2 Glaciation			
2A.7 Glacial erosion creates distinctive landforms and contributes to glaciated landscapes.	3. (a) Study Figure 3 in the Resource Booklet. The student collected sediment size and roundness data at two locations to investigate the differences between glacial and fluvio-glacial deposits as part of fieldwork.	Figure 2 shows a lowland glaciated landscape during and after glaciation.	2. (c) Explain how the glacial mass balance concept contributes to an understanding of glacial systems. (8)
2A.8 Glacial deposition creates distinctive landforms and contributes to glaciated landscapes.	(i) Using information from Figure 3C, identify one difference between the shapes of the sediment found at the two fieldwork sites. (1) (iv) Suggest one reason why the deposits measured at site A are different from those measured at site B. (2)	2. (a) Study Figure 2A. Explain how meltwater has contributed to the formation of the proglacial features shown. (6)	(d) Evaluate the extent to which periglacial landscapes are more vulnerable to climate change than glaciated landscapes. (20)
(Note: questions with an asterisk have not been taken from the SAMs, but are included as a guide to the type of question to expect)			

3.4 Delivery models

The AS and A level Geography courses might be taught by one or two teachers. The models below reflect the structure of the course for either of these scenarios.

Editable AS level and A level course planners are available from the Pearson Geography qualifications page of the website. The course planners have been produced to help you implement this Pearson specification. They are offered as an example of a possible model that you should feel free to adapt to meet your needs and are not intended to be in any way prescriptive. They assume co-teaching AS and A level, and a teaching time of five hours per week.

One-teacher model

- Based on five hours per week and a conservative estimate of 28 weeks before AS exams, and co-teachability.

	Year 12	Year 13
Autumn Term 1	Topic 1: Tectonics 21 hours of teaching time (just over 4 weeks) Topic 3: Globalisation 21 hours of teaching time (just over 4 weeks)	Continue with Topic 5 Topic 7: Superpowers 12–13 hours of teaching (about 3 weeks) Topic 6: The Carbon Cycle and Energy Security 30–32 hours of teaching (6–7 weeks)
Autumn Term 2	Start Topic 2: Coasts or Glaciation 32 hours of teaching (7 weeks) Includes fieldwork	Topic 8A / 8B 44–45 hours of teaching (roughly 9 weeks in total)
Spring Term 1	Complete Topic 2: Coasts or Glaciation This term might include mock exams (perhaps of compulsory topics) Topic 4: Regenerating Places or Diverse Places 32 hours of teaching (7 weeks) Includes fieldwork (2 days)	Complete Topic 8A / 8B Preparation for Synoptic Assessment Allow 30 hours for synoptic preparation Start revision Complete Independent Investigation
Spring Term 2	Synoptic preparation and revision. Allow 24 hours for synoptic preparation (4–5 weeks): alternatively allocate this time to the end of each topic.	Revision of year 1 topics and Preparation for Synoptic Assessment Submit Independent Investigation
Summer Term 1	Revision OR: Independent Investigation If not doing AS exams, allow 30 hours (6–7 weeks) for completing write-up in school between this point and May of Spring Term 2.	Revision of year 2 topics and Preparation for Synoptic Assessment
Summer Term 2	Start Topic 5: Water Cycle and Water Insecurity 30–32 hours of teaching (6–7 weeks)	Revision of first year and year 2 topics and Synoptic Preparation

3. Planning

If doing AS exams, allow 30 hours for completing write up in school between this point and May of Year 13.

- One model of fieldwork delivery is to allocate one period per week over the year (approximately 30 hours in total, including end of Year 12), timetabled to the teacher who will supervise the planning, production and completing of the Independent Investigation. The rest of the taught topics would therefore stretch over the year.
- Alternatively the work could be completed during one half term, under the supervision of the teacher. This could be in the first term on Year 13, or split between September of Year 13 (planning and data collection) and November of Year 13 (write-up).

Two-teacher model

	Year 12 Teacher 1	Year 12 Teacher 2
Autumn Term 1	Topic 1: Tectonics 21 hours of teaching (9–11 weeks)	Topic 3: Globalisation 21 hours of teaching (9–11 weeks)
Autumn Term 2	Finish Topic 1 Topic 2: Coastal Landscapes / Glacial Landscapes 32 hours of teaching (11–14 weeks)	Finish Topic 3 Topic 4: Regenerating Places / Diverse Spaces 32 hours of teaching (11–14 weeks)
Spring Term 1	Finish Topic 2	Finish Topic 2 Complete Independent Investigation
Spring Term 2	Synoptic Preparation (and revision for end of year exams) Allow 12 hours. Alternatively allocate this time to the end of each topic.	Synoptic Preparation (and revision for end of year exams). Allow 12 hours. Alternatively allocate this time to the end of each topic. Submit Independent Investigation
Summer Term 1	Continue with exam preparation if appropriate Topic 5: The Water Cycle and Water Insecurity 25 hours in total (12–13 weeks)	Continue with exam preparation if appropriate. If not doing AS exams, allow 30 hours for completing write up in school between this point and May of Year 13. See below. Topic 7: Superpowers 13–15 hours in total (7–8 weeks)
Summer Term 2	Continue with Topic 5 If doing AS exams, allow 30 hours for completing write up in school between this point and May of Year 13. See below.	Topic 8: Health and Human Rights or Identity and Sovereignty c. 11–12 hours per EQ 45–48 hours in total (22 weeks) If doing AS exams, allow 30 hours for completing write up in school between this point and May of Year 13. See below.

	Year 13 Teacher 1	Year 13 Teacher 2
Autumn Term 1	Topic 6: The Carbon Cycle and Energy Insecurity 25 hours in total (12–13 weeks)	Continue with Topic 8
Autumn Term 2	Continue with Topic 6	Continue with Topic 8
Spring Term 1	Revision of year 1 Synoptic Preparation and revision of year 2 material.	Revision of year 1 Synoptic Preparation and revision of year 2 material.
Spring Term 2	Continue with revision of year 1 and year 2 topics	Continue with revision of year 1 and year 2 topics
Summer Term 1	Continue with revision	Continue with revision
Summer Term 2	Continue with revision	Continue with revision

- One model of fieldwork delivery is to allocate one period per week over the year (approximately 30 hours in total, including end of Year 12), timetabled to the teacher who will supervise the planning, production and completing of the Independent Investigation. In the table above, Topic 7 would be taught in parallel with this.
- Alternatively the work could be completed during one half term, under the supervision of one teacher.
- Or the students could be split into two groups, under the supervision of both teachers. In this model, 15 hours of teaching time should be allocated to each teacher.

4. Content guidance

The subject content has been written around areas of study, which split into topics, and then again into three or four enquiry questions, which encourage students to approach the content in an investigative and critically evaluative way.

- The enquiry questions and key ideas can form the basis for lesson objectives.
- The detailed content columns show the level of breadth and depth of what needs to be taught.
- A globe symbol (🌐) indicates when place exemplification is needed in order to provide a context for the detailed content. In some cases the globe is followed by suitable place exemplification. Note that the places are not compulsory and other similar contexts can be chosen.
- The numbers in brackets are references to the list of integrated skills at the end of each topic in the specification. These might be seen as signposted opportunities to teach geographical skills alongside the introduction of concepts. Alternatively a skills-based task could be completed to assess students' understanding or to recap on previously taught ideas.
- Synoptic themes have been embedded into compulsory content to help students to develop a holistic understanding of geography (see p.14 of the AS specification, and p.9 of the A level specification).
- There are three synoptic themes that run through all the topics, Students could be encouraged to record what they have learnt about these links as they go through the course. Research and discussion around these themes will provide useful background for the synoptic questions at AS, and for A level Paper 3, as well as with in the main topics.
 - Players (P)
 - Attitudes and actions (A)
 - Futures and uncertainties (F)

4.1 AS level

4.1.1 Paper 1 AS level

Area of study 1: Dynamic Landscapes (Topics 1 and 2)

Area of study 1 focuses on the different ways in which landscapes change because of processes and factors operating on many different scales.

There are two sections. In Topic 1, all students must investigate how tectonic hazards are caused, develop into disasters, and can be successfully managed. In Topic 2A, students could choose to study how climate change has influenced the formation of glacial environments, as well as the processes at work to create active and relict landscapes that require management. In Topic 2B, students could choose to how factors like geology have influenced the formation of different coastal environments, the processes at work to create unique landscapes which can pose risk to people and require management.

Topic 1 Overview: Tectonic Hazards (compulsory)

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.

The topic is structured around three enquiry questions, which each represent approximately 7–8 hours of teaching:

- Enquiry question 1: Why are some locations more at risk from tectonic hazards?
- Enquiry question 2: Why do some tectonic hazards develop into disasters?
- Enquiry question 3: How successful is the management of tectonic hazards and disasters?

Most of the material in this section is familiar to teachers of Edexcel's GCE (2008) AS and A2 specification. Mapping guidance documents from this specification and those from other awarding bodies are available on the Edexcel website.

Topic 2A Overview: Glaciated Landscapes and Change (optional)

Students need to develop an understanding of how ice sheets and glaciers operate within a landscape system. A 'landscape system' approach means considering how glacial processes are linked to meteorological and climatological processes, as well as being affected by geology and lithology. Students should be considering how each landscape is distinctive. The specification also requires students to consider how landscapes are being changed by human activities, which can pose unique threats. Most of this material is familiar to those teaching the optional Cold Environments in the 2008 A2 Unit 4 (6GE04). However there is now an increased emphasis on understanding geomorphological processes and landforms.

There is a requirement for students to study examples of landscapes from areas inside and outside of the UK. These landscapes could include present day or relict, in either upland or lowland.

The topic is structured around four enquiry questions, which each represent approximately nine hours of teaching:

- Enquiry question 1: How has climate change influenced the formation of glaciated landscapes over time?
- Enquiry question 2: What processes operate within glacier systems?
- Enquiry question 3: How do glacial processes contribute to the formation of glacial landforms and landscapes?
- Enquiry question 4: How are glaciated landscapes used and managed today?

Examples of suitable themes for fieldwork are listed below, and students could investigate questions and devise methodologies from these suggestions:

- 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.

Topic 2B Overview Coastal Landscapes and Change (optional)

Students need to understand a broad range of coastal landforms, processes and factors to appreciate the characteristics of distinctive rocky, sandy, estuarine coastlines. They also need to understand the threats from physical processes and human activities and how these coastlines can be holistically and sustainably managed around the world.

The topic is structured around four enquiry questions, which each represent approximately nine hours of teaching:

- Enquiry question 1: Why are coastal landscapes different and what processes cause these differences?
- Enquiry question 2: How do characteristic coastal landforms contribute to coastal landscapes?
- Enquiry question 3: How do coastal erosion and sea level change alter the physical characteristics of coastlines and increase risks?
- Enquiry question 4: How can coastlines be managed to meet the needs of all players?

The themes of this topic are familiar to those teaching the optional Coastal Management topic in the 2008 AS Unit 2 (6GE02). There is an increased emphasis on understanding of geomorphological processes and landforms. The range of landforms is best understood in the context of their interaction within different landscapes. Students should study examples of coastal landscapes from areas inside and outside of the UK, for example fjords could be studied in the context of Norway.

There is now greater flexibility around what fieldwork is conducted in a coastal environment. Students should use a combination of fieldwork and research to investigate coastal landscapes, which could either be one coastal region in detail, or cover a range of locations. Examples of suitable themes for fieldwork are below, and students could investigate questions and devise methodologies from these suggestions:

- Changing coastal sediments
- Changing coastal profiles
- Success of coastal management approaches.

4.1.2 Paper 2 AS level:

Area of study 2 Dynamic Places (Topics 3 and 4)

The focus is on the different factors that cause places to change because global, national and local processes influence people who live there.

There are two sections. In the compulsory Topic 3, students must investigate how the causes of globalisation, how it has accelerated, the impact on people and culture and possible need for acting more ethically. Topic 4 is Shaping Places, with a choice of either Topic 4A, where students could choose to study how economic and social changes have left some places needing (sometimes controversial) regeneration. Alternatively, in Topic 4B, students could choose to study how cultural and demographic changes have resulted in socio-political tension and inequality. This requires intervention to create more successful rural and urban communities.

Topic 3 Overview: Globalisation (compulsory)

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 tensions in communities and pressures on environments are likely, will help players to implement sustainable solutions.

- Enquiry question 1: What are the causes of globalisation and why has it accelerated in recent decades?
- Enquiry Question 2: What are the impacts of globalisation for countries, different groups of people and cultures and the physical environment?
- 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?

Topic 4A Overview: Regenerating Places (optional)

Students need to understand the ways different places in the UK change because of local, national and global factors. Whilst some places have prospered, others in both urban and rural areas are in need of regeneration. Urban and rural regeneration programmes involving a range of players involve both place making (regeneration) and place marketing (rebranding). The evidence for this is mixed and contested, as are potential solutions, some of which change the perception people have of these places, and impact on lived experience and attachment.

The topic is structured around four enquiry questions, which each represent approximately nine hours of teaching:

- 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
- Enquiry question 2: Why might regeneration be needed?
- Enquiry question 3: How is regeneration managed?
- Enquiry question 4: How successful is regeneration?

Students are expected to use fieldwork and research to study 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 and consequent management. They should then study one further contrasting place either in the UK, or abroad. Examples of suitable themes for fieldwork are below, and students could investigate questions and devise methodologies from these suggestions:

- Evidence of regeneration strategies
- Public opinion on local regeneration strategies
- Historical change in the area.

Topic 4B Overview: Diverse Places (optional)

Students need to understand the ways local places vary both demographically and culturally because of different local, national and global processes. Their local place may be a locality, a neighbourhood or a small community, either urban or rural. Whilst some places are very diverse, others are more homogenous. The resulting inequality and differences in lived experience can create problems that require

management. The success of management depends on perception and attachment to these places.

The topic is structured around four enquiry questions, which each represent approximately nine hours of teaching:

- Enquiry question 1: How do population structures vary? An in-depth study of the local place in which you live or study and one contrasting place.
- Enquiry question 2: How do different people view diverse living spaces?
- Enquiry question 3: Why are there demographic and cultural tensions in diverse places?
- Enquiry question 4: How successfully are cultural and demographic issues managed?

Students are expected to use fieldwork and research to study the place in which they live or study in order to look at demographic and social changes. Their local place may be a locality, a neighbourhood or a small community, either urban or rural. 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 and consequent management. They should then study one further contrasting place either in the UK, or abroad. Examples of suitable themes for fieldwork are below, and students could investigate questions and devise methodologies from these suggestions:

- Evaluation of areas that have potential for improvement
- Attitudes towards geo-demographic change
- Extent of deprivation in an area

4.2 A level

In addition to Topics 1 and 3 there are three further compulsory topics to be covered at A level. These are: Topic 5: The Water Cycle and Water Insecurity, Topic 6: The Carbon Cycle and Energy Security, and Topic 7: Superpowers. Each of these has three enquiry questions. Students must also choose either Option 8A: Health, Human Rights and Intervention or Option 8B: Migration, Identity and Sovereignty, each of which have four enquiry questions. These are explained below.

4.2.1 Paper 1 A level

Area of study 1: Dynamic Landscapes (Topics 1 and 2)

Please see section 4.1 above, under the AS course for details about the content required in Area of Study 1 for A level.

The additional content that is required for the A level course is detailed below.

Area of study 3: Physical Systems and Sustainability (Topics 5 and 6)

At A level, Topics 5 and 6 are studied in addition to Topic 1 Tectonic Hazards, and Topic 2A Glaciated Landscapes and Change or Topic 2B Coastal Landscapes and Change (explained above). So Paper 1 at A level will assess both Area of study 1,

and Area of study 3 which comprises two compulsory topics: Topic 5: The Water Cycle and Water Insecurity, and Topic 6: The Carbon Cycle and Energy Security.

Topic 5 Overview: The Water Cycle and Water Insecurity (compulsory)

Topic 5 has both new and familiar material, organised into three enquiry questions. These are structured around the need for students to recognise and be able to analyse the complexity of people–environment interactions at all geographical scales, and to appreciate how they underpin understanding of some of the key issues facing the world today, specifically water and energy availability.

Topic 5 provides an opportunity for an in-depth study of the physical processes which control the circulation of water between the stores on land, the oceans, the cryosphere, and the atmosphere. This was previously covered in part in AS World at Risk and A2 Water Conflicts. Topic 5 investigates the operation of the water cycle at a variety of spatial scales and also at short- and long-term timescales, from global to local. Changes to the most important stores of water are a result of both physical and human processes. As water insecurity is becoming a global issue with serious consequences, the topic provides opportunity for studying the range of different approaches to managing water supply.

There are three enquiry questions, each representing approximately 7–8 hours of teaching.

- Enquiry question 1: What are the processes operating within the hydrological cycle from global to local scale?
- Enquiry question 2: What factors influence the hydrological system over short- and long-term timescales?
- Enquiry question 3: How does water insecurity occur and why is it becoming such a global issue for the 21st century?

Most of the material in this section will be familiar to teachers of the GCE (2008) AS and A2 specification.

Topic 6 Overview: The Carbon Cycle and Energy Security (compulsory)

Topic 6 has both new and familiar material. Students will investigate the concept that a balanced carbon cycle is important in maintaining planetary health. The operation of the carbon cycle at a range of spatial scales and timescales, from seconds to millions of years helps put current issues in context. The physical processes which control the movement of carbon between stores on land, the oceans and the atmosphere will be studied. Changes to the most important stores of carbon and carbon fluxes are a result of physical and human processes, and reliance on fossil fuels has caused significant changes to carbon stores and contributed to climate change resulting from anthropogenic carbon emissions.

The water and carbon cycles and the role of feedbacks in and between the two cycles, provide a context for developing an understanding of climate change. Anthropogenic climate change poses a serious threat to the health of the planet. There is a range of adaptation and mitigation strategies that can be used, but for them to be successful they require global agreements as well as national actions.

Again there are three enquiry questions, each representing approximately 7–8 hours of teaching.

- Enquiry question 1: How does the carbon cycle operate to maintain planetary health?

- Enquiry question 2: What are the consequences for people and the environment of our increasing demand for energy?
- Enquiry question 3: How are the carbon and water cycles linked to the global climate system?

Most of the material in this section is familiar to teachers of the GCE (2008) AS and A2 specification. The first two enquiry questions overlap with material from the A2 Energy enquiry question, and the third question extends content from the AS section on climate change.

4.2.2 Paper 2 A level

Area of study 2 Dynamic Places (Topics 3 and 4)

Please see section 4.1.2 above, under the AS course for details about the content required in Area of Study 2 for A level.

The additional content that is required for the A level course is detailed below.

Area of study 4 Human Systems and Geopolitics (Topics 7 and 8)

In addition to the topics above (compulsory Topic 3: Globalisation, and Topic 4A: Regenerating Places or Topic 4B: Diverse Places) A level Paper 2 will assess Area of study 4, which comprises Topic 7: Superpowers (a compulsory unit), and Topic 8: Global Development and Connections which has two options. Students could choose to study Option 8A: Health, Human Rights and Intervention or Option 8B: Migration, Identity and Sovereignty.

Topic 7 Overview: Superpowers (compulsory)

This topic has strong links to the similar topic in the previous specification, with updated content for this constantly evolving theme. Students need to study how Superpowers develop due to a number of characteristics, including hard and soft power for example, and examine how patterns of dominance have changed over time. The topic examines the impacts that Superpowers and emerging superpowers have on the global economy, global politics and the environment. Because the spheres of influence between these powers are frequently contested and changes occur, geopolitical implications follow.

There are three enquiry questions, each representing approximately 7–8 hours of teaching.

- Enquiry question 1: What are superpowers and how have they changed over time?
- Enquiry question 2: What are the impacts of superpowers on the global economy, political systems and the environment?
- Enquiry question 3: What spheres of influence are contested by superpowers and what are the implications of this?

Topic 8: Global Development and Connections

Topic 8 has two options: Option 8A Health, Human Rights and Intervention and Option 8B Migration, Identity and Sovereignty. These include ideas from the compulsory Global Systems and Global Governance section of the DfE subject criteria, alongside familiar material from the 2008 specification.

Topic 8A Overview: Health, Human Rights and Intervention (optional)

This theme draws together ideas from Pollution and Human Health at Risk in 2008 A2 Paper 4 (6GE04) and Bridging the Development Gap in 2008 A2 Paper 3 (6GE03), as it examines how traditional definitions of development (based largely on economic measures) have been increasingly challenged by broader definitions based on environmental, social and political quality of life.

It then includes new material on measures used to record progress at all scales in human rights and human welfare. Students will need to go beyond previous familiar material to examine variations in the norms and laws of both national and global institutions, and consider how these have impacts on global and local decisions. As these may lead to a wide range of geopolitical interventions via international and national policies, a consideration of actions including development aid and military campaigns will be needed. The impact of these interventions on human health and wellbeing, and on human rights varies globally, so contrasting examples must be studied. These will explore how some groups appear to benefit disproportionately, which can lead to increasing inequalities and injustice.

There are four enquiry questions, each representing approximately nine hours of teaching.

- Enquiry question 1: What is human development and why do levels vary from place to place?
- Enquiry question 2: Why do human rights vary from place to place?
- Enquiry question 3: How are human rights used as arguments for political and military intervention?
- Enquiry question 4: What are the outcomes of geopolitical interventions in terms of human development and human rights?

Topic 8B Overview: Migration, Identity and Sovereignty (optional)

This topic builds on the general introduction to globalisation covered in Topic 3, and develops to consider the tensions which can result. Globalisation produces growing levels of environmental, social and economic interdependence among people, economies and nation states, and generates potential clashes with traditional definitions of national sovereignty and territorial integrity. International migration changes the ethnic composition of populations and also alters attitudes to national identity. Alongside this, students need to study the nationalist movements that have developed in some places which may redefine ideas of national identity.

The topic goes on to investigate how global governance has developed to manage a number of common global issues (environmental, social, political and economic) and has a mixed record in its success in dealing with them. Students will learn how global governance has promoted growth and political stability for some people in some places whilst not benefiting others. Unequal power relations often lead to unequal environmental, social and economic outcomes.

There are four enquiry questions, each representing approximately nine hours of teaching.

- Enquiry question 1: What are the impacts of globalisation on international migration?
- Enquiry question 2: How are nation states defined and how have they evolved in a globalising world?

- Enquiry question 3: What are the impacts of global organisations on managing global issues and conflicts?
- Enquiry question 4: What are the threats to national sovereignty in a more globalised world?

4.3 Paper 3 A level

Paper 3 is a synoptic assessment of geographical skills, knowledge and understanding (within a place-based context) from compulsory content drawn from different parts of the course.

The specification contains three synoptic themes within the compulsory content areas which will be key features in this part of the examination:

- Players
- Attitudes and actions
- Futures and uncertainties.

The synoptic paper will be based on a geographical issue within a place-based context that links to these three synoptic themes, and will be rooted in two or more of the compulsory content areas. There is no required content to cover, but teachers should emphasise the synoptic themes in teaching throughout the course.

Students will be expected to show their accumulated knowledge and understanding of the subject in this examination.

Ideas for where these synoptic themes can be included are indicated throughout the specification, for example:

- Topic 7 Enquiry question 3, Key idea 7.7: Tensions can arise over the acquisition of physical resources (Arctic oil and gas) where ownership is disputed and disagreement exists over exploitation. **(A: attitudes and actions in relation to resources)**.

Discussion and debate in class will be ideal ways to prepare for this paper.

4.4 Fieldwork for AS level Geography

AS students must undertake a minimum of two days of fieldwork. Centres will be required to provide a written fieldwork statement that fieldwork has taken place, signed by the headteacher or principal. This form can be found on page 58 of the AS level specification. 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 both physical and human geography and will be externally assessed in both AS Paper 1 and AS Paper 2 respectively. 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.

4.5 Fieldwork for the Independent Investigation (A level only)

For A level, students must carry out a total of four days of fieldwork, and Appendix 8 must be completed and signed by the headteacher of your school or college to confirm that these have taken place. This fieldwork must include work on both human and physical themes.

Even if students are not being entered for the AS examinations, most schools and colleges will choose to undertake two days of fieldwork in Year 12 to equip students with the necessary skills to be able to carry out the Independent Investigation (sometimes called the NEA or Non Examined Assessment). Fieldwork is most relevant to Topics 2 and 4, which is the content that incorporates fieldwork at AS (Topic 2: Glaciated Landscapes and Change **or** Coastal Landscapes and Change, and Topic 4: Regenerating Places **or** Diverse Places). Then at least two further days can be carried out towards the full A level requirement at the end of Year 12 or beginning of Year 13.

For the Independent Investigation, the student defines a question or issue for investigation, relating to the compulsory or optional content. The topic may relate to any aspect of geography contained within the specification from any topic, or it can be based on the four days of fieldwork done by the centre. These decisions can be made by the centre, and are likely to be based on the location, situation and the nature of logistical support found there. Teachers will need to think about this carefully well before the end of the first year.

The student's investigation must incorporate fieldwork data (collected individually or as part of a group) and their own individual research and/or secondary data. This fieldwork may be based on either human, physical or integrated physical-human themes.

The investigation report must evidence independent analysis and evaluation of data, presentation of data findings and extended writing.

Students will be expected to show evidence that they have used both quantitative and qualitative data to support their Independent Investigation as appropriate to the particular environment and/or location.

The investigation report is internally assessed and externally moderated. The student will produce a written report of 3000–4000 words.

There is further information about the investigation in section 7.7 below.

5. Assessment guidance for AS level

5.1 Implications of linear assessment

The AS level is a stand-alone qualification and results do not contribute toward the full A level qualification. Students take both papers at the end of one year of teaching.

The specification is designed to be co-teachable, so students in the same class may all be taking AS, or all taking A level, or a mixture of both. The topics assessed at AS are also assessed in the full A level qualification. Students may be entered for one or both examinations, but this will need to be negotiated with examination officers at your centre as there will be cost implications.

5.2 AS Assessment Objectives and Weightings

	Students must:	AS level
A01	Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scale	40%
A02	Apply knowledge and understanding in different contexts to interpret, analyse and evaluate geographical information and issues	35.6%
A03	Use a variety of relevant quantitative, qualitative and fieldwork skills to: <ul style="list-style-type: none"> 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 for AS level

Paper	Assessment Objectives			Total for all Assessment Objectives
	A01	A02	A03	
Paper 1	20%	17.8%	12.2%	50%
Paper 2	20%	17.8%	12.2%	50%
Total for AS level	40%	35.6	24.4%	100%

5.3 Assessment Overview at AS level

Content	Total marks	Time (minutes)	Max. mark tariff
Paper 1: Dynamic Landscapes		105	
Section A: Tectonic Processes and Hazards	28		12
Section B: Glaciated Landscapes and Change	28		12
	18		9
	16		16
Section C: Coastal Landscapes and Change	28		12
	18		9
	16		16
Paper 2: Dynamic Places		105	
Section A: Globalisation	28		12
Section B: Regenerating Places	28		12
	18		9
	16		16
Section C: Diverse Places	28		12
	18		9
	16		16

5.4 Question Types

A range of different question types will be used within all examinations in order to assess a variety of requirements and facilitate differentiation. The different questions types that are used are as follows.

- **Multiple-choice questions (MCQ):** Students are required to select the correct answer from a choice of four (A, B, C and D). In a variation to this students may be required to select two correct answers from a choice of five.
- **Calculation:** These could both be short or long, and vary in mark allocations.
- **Short open response:** Usually a single word or up to a couple of sentences, for between 1 and 3 marks.
- **Open response:** Usually a few sentences or a very short paragraph for 4 marks. Sometimes guidance will be given, e.g. 'Give two reasons'.
- **Extended open response:** Students are required to assess the ability to develop extended written arguments and to draw well-evidenced and informed conclusions about geographical questions and issues. These questions are discussed further in the table below.
- **Resource linked questions:** The resource booklet provides stimulus material for one or more questions in a section. Answers should refer to data or ideas from the resource booklet as appropriate.

Note that levels-based mark schemes are used for all questions with a tariff of 6 marks or more. Examples are to be found throughout the SAMs.

Paper	Extended Open Response Questions
Paper 1	<p>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.</p> <ul style="list-style-type: none"> • In optional Sections B or C, one question will assess geographical theory in relation to either Glaciated Landscapes and Change or Coastal Landscapes and Change. The final question will be a 12-mark extended writing question. • The next question will assess student experiences of fieldwork and research in that topic. The final question will be a 9-mark extended writing question. • Each section ends with one 16-mark synoptic question.
Paper 2	<p>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.</p> <ul style="list-style-type: none"> • In optional Sections B or C, one question will assess geographical theory in relation to either Regenerating Places or Diverse Places. The final question will be a 12-mark extended writing question. • The next question will assess student experiences of fieldwork and research in that topic. The final question will be a 9-mark extended writing question. • Each section ends with one 16-mark synoptic question.

Overview of the final Synoptic Question on AS Paper 1 and Paper 2

In AS Paper 1 and Paper 2, optional Sections B and C include a 16-mark synoptic question that assesses students' understanding of core geographical concepts from the compulsory and optional sections of each paper, based on a located example.

- For Paper 1 this is Tectonics, alongside a theme from Landscapes, Processes and Change (either Glaciated Landscapes or Coastal Landscapes).
- For Paper 2, this is Globalisation, alongside a theme from Shaping Places (either Regenerating Places or Diverse Places).

There is a short resource section provided in the examination paper to provide locational detail for a place. This provides some preparation for the A level Paper 3.

Students should be prepared for this by considering synoptic links between the topics.

5.5 Command Words for AS level

Command word	Definition	Tariff and AO targeting
Assess	Use evidence to determine the relative significance of something. Give balanced consideration to all factors and identify which are the most important.	9 marks for fieldwork section. (AO3) 12 marks at end of sections. AO1 (3 marks) / AO2 (9 marks)
Calculate	Produce a numerical answer, showing relevant working. Marks depend on level of complexity or stages required for the calculation	1–2marks AO3
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.	2–3 marks AO3 or AO1 (2) and AO2 (1) depending on context
Complete	Create a graphical representation of geographical information by adding detail to a resource that has been provided	1–2 marks AO3
Define	State the meaning of a term	1 mark AO1
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.	2–3 marks AO1 is recall AO3 with a stimulus.
Draw / plot	Create a graphical representation of geographical information.	2–3 marks AO3
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.	16 marks Synoptic question AO1 (4 marks) / AO2 (12 marks)
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.	4 marks (if scaffolded it requires 2 reasons) AO1 4 marks (in fieldwork section on unfamiliar fieldwork) AO3

		6 marks if open-ended AO1
Identify / Give / Name / State	Recall or select one or more pieces of information.	1–2 marks AO1 if recalling. AO3 in fieldwork section.
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.	2 marks in fieldwork section AO3 3 marks in other sections AO1 (2 marks) / AO2 (1 mark)

Mark allocation for command words at AS

	1	2	3	4	6	9	12	16
Identify/Give/Name	*	*						
Define	*							
Calculate	*	*						
Compare		*	*					
Complete	*	*						
Describe		*	*					
Draw / plot	*	*	*	*				
Suggest		*	*					
Explain (short)		*	*	*				
Explain (extended)					*			
Assess						*	*	
Evaluate								*

5.6 Overview of Question Types

Below are some examples of questions that feature in both Paper 1 and Paper 2. The commentary shows how they relate to the specification and also how the Assessment Objectives will be interpreted within the mark scheme. These examples have been taken from the Sample Assessment Materials (SAMs), which can be found on the Pearson website.

Note that levels-based mark schemes are used for all questions with a tariff of six marks or more. Examples are to be found throughout the SAMs, and examples are provided below.

Identify/Give/Name

1 (a) Name one scale used to measure earthquake magnitude. (1)

Name: This 1-mark question requires identification of a relevant scale and will normally be found towards the beginning of different sections, when assessing AO1. It requires simple factual recall of one part of the detailed content.

Specification Link

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)).

Mark scheme: AO1 (1 mark)

Award 1 mark for a correctly identified scale from the following:

- Modified Mercalli (MM) (accept Mercalli)
- Moment Magnitude Scale (MMS)
- Richter.

Calculate / Complete

(b) Study Figure 1 in the Resource Booklet. (i) Calculate how much cheaper material costs are in Bangladesh than in the USA. (1)

This requires a calculation based on stimulus material. A simple subtraction achieves the correct answer. By contrast a multi-step calculation would be worth 2 marks and require students to show their working out. The question assesses AO3.

Mark scheme: AO3 (1 mark)

Answer: \$1.70

Do not accept any other value.

Suggest(ii) Suggest one reason why the more powerful earthquakes shown in Figure 1 did not cause the most deaths. (3)

The command work 'suggest' is used in combination with a figure. It expects that students will apply a previously taught idea to the situation in the figure which will be unfamiliar to them. Because they are being asked to explain why something might have occurred, two of the marks in the question assess AO1 (recall of conceptual knowledge) but one additional mark is awarded for AO2 as students give their reasons for the information they have extracted from the figure.

Specification Link

b. Comparing the characteristics of earthquakes, volcanoes and tsunamis (magnitude, speed of onset and areal extent, duration, frequency, spatial predictability) through hazard profiles.

Mark scheme: AO1 (2 marks)/AO2 (1 mark)

Award 1 mark for analysing the resource (AO2) to identify a possible reason for the death toll and a further 2 marks (AO1) for justifying the possible reason. For example:

- Some regions where most powerful earthquakes occur might have better transport links (1) and so aid/help takes little time to arrive (1), decreasing the likelihood that injured people become fatalities (1)
- Some regions might be richer and more developed than average for the country (1) so better infrastructure because of development (1) as well as aseismic buildings decreasing fatalities (1)
- Some regions might have a lower population density (1) so fewer people are exposed to the primary and secondary hazards of an earthquake (1) and have less chance of being trapped by landslides (1) or collapsing buildings.

Accept any other appropriate response.

Explain (short)

(c) Explain two ways changes in transport have accelerated globalisation. (4)

This shorter version of an 'Explain' question targets AO1, which assesses students' ability to recall conceptual knowledge. In this case, the question targets one small part of the detailed content but, as the detailed content shows, there are a number of methods of transport that could be used to answer the question.

Specification Link

Key idea **3.1** Globalisation is a long-standing process which has accelerated because of rapid developments in transport, communications and businesses.

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'.

Mark scheme: AO1 (4 marks)

For each way, award 1 mark for a change in transport, and a further 1 mark for expansion, up to a maximum 2 marks each.

For example:

- Faster/cheaper trains/ships have resulted in decreased friction of distance (1) which results in apparent shrinking world with cultural/economic/social links (1)
- Containerisation of shipping has led to reductions in cost of shipping (1) so growth in global trade as it facilitates outsourcing/growth of TNCs and global supply chains (1)
- Reduction in cost of air flights as aircraft have become larger/more efficient (1) so promotion of tourism/business/migration travel for individuals (1).

Accept any other appropriate response.

Explain (extended)

(d) Explain the causes of tsunamis (6)

This longer version of an 'Explain' question assesses AO1. Like the previous example, it also focusses on recall of knowledge and understanding of geographical ideas and processes. As you look at the associated link to the

specification, you can see that the indicative content follows the detailed content. However this does not mean students have to apply exactly the same logic and order of ideas. Full marks might be obtained via another route. However, based on the specification, they are likely to write about, and indeed might be expected to understand, each of the ideas mentioned.

Specification link

- 1.3 Physical processes explain the causes of tectonic hazards. c. Tsunamis can be caused by sub-marine earthquakes at subduction zones as a result of sea-bed and water column displacement.

Mark scheme: AO1 6 marks

Indicative content guidance

The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

- Tsunami waves are caused by the displacement of large quantities (columns) of water
- Earthquakes displace water when movement causes the seabed to thrust upwards undersea landslides displace water when material falls from a continental shelf on to the seabed
- Volcanic eruptions displace water when material ejected from the volcano falls into the sea
- Landslides displace water when large quantities of water are displaced by land falling into the sea
- The displaced water becomes tsunami waves and as the waves reach shallower water in coastal areas (as the topography of the seabed changes) the waves become higher
- In shallower water the friction between the tsunami wave and the seabed increases and the tsunami wave slows down, decreasing wave length but increasing wave height.

Level 1: 1–2 marks

- Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)
- Understanding addresses a narrow range of geographical ideas, which lack detail. (AO1)

Level 2: 3–4 marks

- Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1)
- Understanding addresses a range of geographical ideas, which are not fully detailed and/or developed. (AO1)

Level 3: 5–6 marks

- Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1)
- Understanding addresses a broad range of geographical ideas, which are detailed and fully developed. (AO1)

Assess (Fieldwork)

(b) You collected secondary data during your fieldwork relating to Regenerating Places. Assess the value of the secondary data you used when investigating your research question. (9)

These questions will appear towards the end of each optional topic, i.e. Glaciation and Coasts, or Regenerating Places and Diverse Places. Although some recall of fieldwork and research is necessary to answer the question fully, the emphasis is on AO3 and fieldwork skills.

As well as quantitative and qualitative skills, it is also important to demonstrate the ability to think more critically about data sources, methodologies and presentation, as well as written communication skills, both about geographical ideas and investigation judgements. These skills are outlined more fully on page 56–58 of the AS level specification.

Mark scheme: AO3 (9 marks)

Indicative content guidance

Content depends on students' choices of field research and the conclusions drawn. Assessment should include the following:

- Ideas should cover secondary data researched (e.g. Census data, newspapers, maps, blogs, other published material such as Geography Review magazine or Geofile, DVDs or websites (e.g. Francis Frith, Old Maps, TripAdvisor)
- Choice of sources should be explained and assessed with reference to the field research question. A comparison of their relative merits may be included
- Credit assessment of choice and range of sources used if linked to methodology
- Credit assessment of bias and reliability of the source if appropriate
- Critical assessment of the effectiveness of the sources of primary methods used, with a judgement about their value, and degree to which the chosen secondary methods helped to investigate the research question.

Level 1: 1–3 marks

- Shows evidence that fieldwork investigation skills used may not have been fully appropriate or effective for the investigation of the geographical questions/issue. (AO3)
- Considers the fieldwork investigation process/data/evidence, with limited relevant connections and/or judgements. (AO3)
- Argument about the investigation is simplistic and/or generic. (AO3)

Level 2: 4–6 marks

- Shows evidence that fieldwork investigation skills used were largely appropriate and effective for the investigation of the geographical questions/issue. (AO3)
- Critically considers the fieldwork investigation process/data/evidence in order to make some relevant connections and valid judgments. (AO3)
- Argument about the investigation may have unbalanced consideration of factors, but is mostly coherent. (AO3)

Level 3: 7–9 marks

- Shows evidence that fieldwork investigation skills used were appropriate and effective for the investigation of the geographical questions/issue. (AO3)
- Critically considers the fieldwork investigation process/data/evidence in order to make relevant connections and judgments that are supported by evidence. (AO3)
- Argument about the investigation includes balanced consideration of factors and is fully developed and coherent. (AO3)

Synoptic - Evaluate (16)

Study Figure 4 in the Resource Booklet. Evaluate the relative importance of tectonic and glacial processes in generating the hazard at the Vatnajökull ice sheet. (16)

AS synoptic questions will be based on a link between a key idea from the compulsory topics at AS level (i.e. Tectonics or Globalisation), and an idea from the optional topics in that paper (i.e. Coasts and Glaciation, Regenerating Places and Diverse Places). There will be a different synoptic question for each optional topic, and it will follow the fieldwork questions for the option the candidate has chosen to study.

The resource booklet will give students a number of pieces of information about a particular place where the key ideas are both found. An extended response question will require students to draw that information together in order to reach a justified opinion.

Specification link

- The global distribution of tectonic hazards can be explained by plate boundary and other tectonic processes.
- Enquiry question 3: How do glacial processes contribute to the formation of glacial landforms and landscapes?

Mark scheme: AO1 (4 marks)/AO2 (12 marks)

Responses that demonstrate only AO1 without any AO2 should be awarded marks as follows:

- Level 1 AO1 performance: 1 mark
- Level 2 AO1 performance: 2 marks
- Level 3 AO1 performance: 3 marks
- Level 4 AO1 performance: 4 marks

Indicative content guidance

The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:

AO1

- Volcanoes cause ash falls and secondary hazards such as jökulhlaup
- The process of ablation (melting, calving, evaporation and avalanches), and reasons for variation in rate of ablation
- The processes of water movement within the glacial system are supraglacial, englacial and subglacial flows

AO2

- To begin with, the glacial process of ablation is the key process explaining the discharge of the proglacial river before the volcanic eruption on 3/11 melting the overlying ice. As it is winter (November) there is little ablation due to the cold temperatures and most will be surface melting. This means that the main glacial process will be supraglacial flow with less englacial and subglacial flows
- The volcanic activity that starts on the 4/11, however, acts as the trigger to enhance the rate of ablation, particularly at the base of the glacier. This means that in contrast to the flow on the 3/11, on 4/11 the increased base temperature is the key factor as it will increase the rate of ablation, particularly subglacial flows leading to a higher discharge (table and map)
- Despite this increased ablation, it is glacial processes that are the key process in determining the lag between the eruption (4/11) and the peak flow (5/11). This is because the eruption creates a supraglacial lake (map) and this water then moves through the slower glacial processes of limited supraglacial flow and then englacial and subglacial flow, leading to the snout of the glacier (photo)
- The increased water in the ice-dammed lake in the Lake Grímsvötn volcano caldera (map) is now likely to have broken and so increased the amount of meltwater and ash contained in the meltwater. This breach of the ice dam is the key process in allowing the ash that subsequently swells the jökulhlaup in the lowland plains
- Glacial processes are also the dominant process in the next stage of jökulhlaup, as the increased supraglacial flow widens the existing crevasses on the surface of the glacier and so contributes to the calving of the ice blocks (photo and table) which causes great damage to the transport infrastructure due to the density of the ice blocks
- This latter-stage jökulhlaup is also still being affected by a combination of the volcanic processes and glacial processes as the ash created at the mouth of the volcano is mixed with the melted water and then carried supraglacially, englacially and subglacially to the snout of the glacier and the outwash plain which are key in increasing the total volume of the which then leads to the damage noted in the table
- Overall, although tectonic processes were the trigger for the rapid ablation, it is probably a combination of tectonic and glacial processes that then determine the subsequent jökulhlaup.

Level 1: 1–4 marks

- Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. (AO1)
- Applies knowledge and understanding of geographical information/ideas, making limited and rarely logical connections/relationships, to produce an interpretation with limited relevance and/or support. (AO2)
- Applies knowledge and understanding of geographical information/ideas to produce an unsupported or generic conclusion, drawn from an argument that is unbalanced or lacks coherence. (AO2)
- Limited synthesis of geographical ideas from across the course of study. (AO2)

Level 2: 5–8 marks

- Demonstrates geographical knowledge and understanding, which is occasionally relevant and may include some inaccuracies. (AO1)

- Applies knowledge and understanding of geographical information/ideas with limited but logical connections/relationships to produce a partial interpretation that is supported by some evidence but has limited coherence. (AO2)
- Applies knowledge and understanding of geographical information/ideas to come to a conclusion, partially supported by an unbalanced argument with limited coherence. (AO2)
- Argument partially synthesises some geographical ideas from across the course of study, but lacks meaningful connections. (AO2)

Level 3: 9–12 marks

- Demonstrates geographical knowledge and understanding, which is mostly relevant and accurate. (AO1)
- Applies knowledge and understanding of geographical information/ideas to find some logical and relevant connections/relationships to produce a partial but coherent interpretation that is supported by some evidence. (AO2)
- Applies knowledge and understanding of geographical information/ideas to come to a conclusion, largely supported by an argument that may be unbalanced or partially coherent. (AO2)
- Argument synthesises some geographical ideas from across the course of study, making some meaningful connections. (AO2)

Level 4: 13–16 marks

- Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1)
- Applies knowledge and understanding of geographical information/ideas to find fully logical and relevant connections/relationships to produce a full and coherent interpretation that is supported by evidence. (AO2)
- Applies knowledge and understanding of geographical information/ideas to come to a rational, substantiated conclusion, fully supported by a balanced argument that is drawn together coherently. (AO2)
- Argument comprehensively and meaningfully synthesizes geographical ideas from across the course of study throughout the response. (AO2)

6. Assessment guidance for A level

6.1 Implications of linear assessment

All three exam components and the Independent Investigation must be submitted together at the end of the two year course. The first exam series will be in June 2018. Retakes will be available the following year.

6.2 Assessment Objectives and Weightings

	Students must:	A level
AO1	Demonstrate knowledge and understanding of places, environments, concepts, processes, interactions and change, at a variety of scale	34%
AO2	Apply knowledge and understanding in different contexts to interpret, analyse and evaluate geographical information and issues	40%
AO3	Use a variety of relevant quantitative, qualitative and fieldwork skills to: <ul style="list-style-type: none"> investigate geographical questions and issues interpret, analyse and evaluate data and evidence construct arguments and draw conclusions 	26%
	Total:	100%

Breakdown of Assessment Objectives for A level

Papers	Assessment Objectives			Total for all Assessment Objectives
	AO1	AO2	AO3	
Paper 1	13%	15.75%	1.25%	30%
Paper 2	13%	15.75%	1.25%	30%
Paper 3	5.5%	6%	8.5%	20%
Paper 4	2.5%	2.5%	15%	20%
Total for A level	34%	40%	26%	100%

6.3 Assessment Overview at A level

Content	Total marks	Time (minutes)	Max. mark tariff
Paper 1	105	2 hours 15 minutes	105
Section A: Tectonic Processes and Hazards	16: 4, 12		12
Section B: Glaciated Landscapes and Change or Coastal Landscapes and Change	40: 6, 6, 8, 20		20
Section C: Physical Systems and Sustainability	49: 3, 6, 8, 12, 20		20
Paper 2	105	2 hours 15 minutes	105
Section A: Globalisation/Superpowers	32: 4, 12 4, 12		12
Section B: Shaping Places: Regenerating Places or Diverse Places	35: 3, 6, 6, 20		20
Section C: Global Development and Connections: Health, Human Rights and Intervention or Migration, Identity and Sovereignty	38: 3, 1, 6, 8, 20		20
Note: there is a 4-mark calculation question which may be placed in Section A (Q1 or Q2) or in Section C (as seen in first set of SAMs, where it is split into a 3-mark question and a 1-mark question). The 4-mark 'Explain' question will move to take its place.			
Paper 3: Synoptic paper	70:	2 hours 15 minutes (including reading time)	70
	4, 4, 4, 8, 8, 18, 24		24
Non-Examined Assessment (NEA): Independent Investigation	70:	Submitted by May in year of examination	70
Marks awarded for extended writing	12, 10, 24, 24		

6.4 Question Types

A range of different question types will be used within all examinations in order to assess a variety of requirements and facilitate differentiation.

The different questions types that are used are similar to those outlined above for AS. In addition the following question types are used.

- There will not be multiple choice questions at A level
- **Calculation:** These could both be short or long, and vary in mark allocations. The total marks for calculation will be 4 marks per paper on Paper 1 and Paper 2, and could be made up of any combination of 1, 2, 3 or 4 marks as appropriate to the question.
- **Open response:** Usually a few sentences or a very short paragraph for 3 or 4 marks.
- **Extended open response:** Students are required to assess the ability to develop extended written arguments and to draw well-evidenced and informed conclusions about geographical questions and issues. These responses are discussed further in the table below.
- **Resource linked questions:** The resource booklet provides stimulus material for one or more questions in a section. Answers should refer to data or ideas from the resource as appropriate.
- **Evaluation:** These 20-mark questions come at the end of the optional topics only (Topic 4 A/B and Topic 8A/B), and either combine two parts of the specification for that topic, or are resource based.

Note that levels-based mark schemes are used for all questions with a tariff of 6 marks or more. Examples are to be found throughout the SAMs, and some are discussed below.

There is ramped demand of written responses within topics and papers, 3 marks to 20 marks, with one 24 marks question on Paper 3. The mark tariff for extended response question types varies across the components as shown in the table below.

A level question types

Paper	Extended open response questions
Paper 1	<p>The examination will include, open response, calculation and resource-linked questions. The examination includes 6-, 8- and 12-mark questions, and 20-mark extended writing questions. Calculators will be required.</p> <ul style="list-style-type: none"> Section A assesses Tectonics, with a resource based calculation question and an extended writing question. Section B includes two options, assessing geographical theory in relation to either Glaciated Landscapes and Change or Coastal Landscapes and Change. There will be extended writing questions. Section C assesses compulsory Topic 5: Water Cycle and Water Insecurity and Topic 6: Carbon Cycle and Energy Security. There will be extended writing questions.
Paper 2	<p>The examination will include open response, calculation and resource-linked questions. The examination includes 6-, 8- and 12-mark questions and 20-mark extended writing questions. Calculators will be required.</p> <ul style="list-style-type: none"> Section A relates to Topics 3 and 7: Globalisation / Superpowers, with extended writing questions. Section B relates to Topic 4: Shaping Places. Students answer questions on either Topic 4A: Regenerating Places or Topic 4B: Diverse Places. There will be one 20 mark question. Section C relates to Topic 8: Global Development and Connections. Students answer questions on either Topic 8A: Health, Human Rights and Intervention or Topic 8B: Migration, Identity and Sovereignty. There will be one 20 mark question.
Paper 3	<p>All questions on Paper 3 are compulsory, and based on resources provided. There will be a combination of skills questions, short open, open response, calculations and resource-linked questions and extended writing questions. This is discussed further below in section 6.7.</p>
Paper 4	<p>This is the Independent Investigation, requiring a completed fieldwork-based investigation comprising 3000–4000 words of extended writing alongside data presentation and analysis techniques. It is completed as coursework and submitted in the May before the A level examinations. It is discussed in depth at 6.8 below.</p>

6.5 Command Words for A level

Command word	Definition	Tariff and AO targetting
Analyse (only used on Paper 3)	Break something down into individual components/processes and say how each one individually contributes to the question's theme/topic and how the components/processes work together and interrelate	8 marks AO1 (4 marks) / AO3 (4 marks)
Assess	Use evidence to determine the relative significance of something. Give balanced consideration to all factors and identify which are the most important.	12 marks AO1 (3 marks) / AO2 (9 marks)
Calculate	Produce a numerical answer, showing relevant working. Marks depend on level of complexity or stages required for the calculation	1–4 marks AO3
Draw / plot	Create a graphical representation of geographical information.	1–4 marks AO3 (1–4 marks)
Evaluate	Measure the value or success of something or a statement, 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.	20 marks (Papers 1 and 2) AO1 (5 marks) / AO2 (15 marks) 18 marks (Paper 3) AO1 (3 marks) / AO2 (9 marks) / AO3 (6 marks) 24 marks (Paper 3) AO1 (4 marks) / AO2 (12 marks) / AO3 (8 marks)
Explain how/why (with a resource)	Use knowledge and understanding to geographical information to find relevant connections/relationships between resource booklet material and the question. An explanation of something interpreted from a resource is required.	3 marks or 6 marks AO1 (2 marks) / AO2 (1 mark) or AO1 (3 marks) / AO2 (3 marks)
Explain how/why	Provide a reasoned explanation of how/why something occurs. An explanation requires understanding to be demonstrated through the justification or exemplification of points that have been identified. The explanation should be sustained, logical and detailed.	4 marks AO1 (4 marks) 6 marks AO1 (6 marks) 8 marks AO1 (8 marks)
Suggest how/why or	<ul style="list-style-type: none"> For an unfamiliar scenario (using a resource provided in booklet), provide a reasoned explanation of why something may occur. 	3 marks AO1 (2 marks) / AO2 (1 mark)

Suggest one or two reasons	<ul style="list-style-type: none"> 'Suggest' is used because students are not expected to have direct knowledge of a place named in a resource, so they can only suggest an explanation A suggested explanation requires a justification/exemplification of a point that has been identified. 	6 marks AO1 (3 marks) / AO2 (3 marks)
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Mark allocation for command words at A level

	1	3	4	6	8	12	18	20	24
Suggest		*		*					
Draw/Plot/Complete/Calculate	*	*	*						
Explain (short)		*	*						
Explain (extended)				*	*				
Assess						*			
Analyse					*				
Evaluate							*	*	*

6.6 Overview of Question Types

Below are examples of questions that feature in Paper 1, Paper 2 and Paper 3. The commentary shows how they relate to the specification and also how the Assessment Objectives will be interpreted within the mark scheme. These examples have been taken from the Sample Assessment Materials (SAMs), which can be found on the Pearson website, where the Question Papers, Resource Booklet and mark schemes are available. Paper 3 has unique features, and is discussed in a separate paragraph at 6.7 below.

Plot/draw

A level Paper 2, Question 5 a) Using the data from Figure A, complete Figure B by:

- plotting the data for Egypt, Iran and the Czech Republic (3)
- drawing a regression (best-fit) line to show the relationship (1).

Specification link

Topic 8 Option 8A Skill (2) Use of scatter graphs and correlation techniques to describe the relationship between health and life expectancy and other indicators of development.

This question assesses skills (**AO3**) applied to development data.

Mark scheme: AO3 3 marks and 1 mark

(i) AO3 (3 marks)

1 mark is awarded for each correctly plotted point for Egypt, Iran and the Czech Republic, up to maximum of 3 marks.

See page 124 in SAMs mark scheme for correct plotting of points.

5(a)(ii) AO3 (1 mark)

1 mark is awarded for a line of best fit that falls within the acceptable range.

See page 124 for acceptable range.

Paper 3 only:

Analyse:

Q3 Study Figure 3 in Section B of the Resource Booklet, which shows data for three countries.

Analyse the differences in level of development for the three countries shown. (8)

This is a synoptic question based on data provided in the resource booklet. Students are assessed on their knowledge of the specification (AO1) and their ability to analyse the data provided (AO3). They need to identify trends, and select relevant statistics to support their assertions.

Mark scheme: AO1 4 marks /AO3 4 marks

AO1

Expect comments that assess development by referring to range of measures, both human and economic such as Gini Coefficient, GDP per capita and HDI (Human Development Index).

AO3 Expect analytical comments that use data to describe and explain trends, making comparisons in this case between countries. For example points like these might be made: Angola's economy is growing much faster than the DRC/Congo; answers might argue this does not indicate level of development, only progress from a human development perspective, Angola looks weaker than Congo; it has a very high infant mortality rate (suggesting poor healthcare/access) and a low life expectancy (Congo is a full six years' more). It can be argued that Congo is the most developed.

Mark scheme A level 1 answer will demonstrate isolated elements of geographical knowledge and understanding, some of which may be inaccurate or irrelevant. There will be limited analysis of evidence and few connections to geographical ideas. A top band answer will show accurate and relevant knowledge and understanding throughout, and produce a coherent analysis of evidence

Assess:

This may be used in any of the three A level papers, and expects students to use evidence to determine the relative significance of something. They are expected to give balanced consideration to all factors and identify which are the most important.

A level Paper 2

Q2(b) Assess to what extent the superpowers' rising demand for physical resources has led to both environmental and political challenges.(12)

Mark scheme AO1 (3 marks)/AO2 (9 marks)

Relevant points may include:

AO1

- There is a variety of political and environmental challenges, which exist both domestically and internationally, – direct political challenges to military power over key resources (especially oil), challenges to independence of political action (Russia versus Ukraine), challenges of the environmental impact of exploiting a contested resource base. No superpower is self-sufficient in physical resources but they vary in their dependency on imports to maintain their economies

AO2

- There are clearly short-term environmental challenges (pollution of waterways in east and south Asia) but also potentially more serious long-term consequences through habitat destruction and the production of greenhouse gases The governments and political elites of the superpowers need to legitimate power by maintaining economic growth or they face internal political challenges to the ruling elite/government that may lead to change.

Mark scheme:

A top band answer will be one that demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) but also makes relevant connections, supported by evidence. There are supported judgements about the significance of the identified factors, producing a balanced argument. (AO2)

Evaluate:

A level Papers 1 and 2 include 'Evaluate' questions will be based on links between two or more enquiry questions or key ideas from the specification content for that topic, or optional topic, or they may be resource based. Students need to measure the value or success of something and ultimately provide a balanced and substantiated judgement/conclusion. They should review information and then bring it together to form a conclusion, drawing on evidence such as strengths, weaknesses, alternatives and relevant data.

AS 'Evaluate' questions bring together two parts of the specification, either Tectonics and Glaciation/Coasts on AS paper 1, or Globalisation and Regenerating Places/ Diverse Places.**AO1 (5 marks) /AO2 (15 marks)**

Sample question from A level SAMs Paper 1

4 e) Evaluate the extent to which today's increasing demand for energy is the most important factor modifying the carbon cycle (20)

This question links the following two topics:

Topic 6 Enquiry question 2: What are the consequences for people and the environment of our increasing demand for energy?

Topic 6 Enquiry question 3: How are the carbon and water cycles linked to the global climate system?

The following comments are summarised from the mark scheme which can be found in full in the SAMs (p166–167)

AO1

- Growing demand for energy leads to changes in land use cover (largely deforestation but some afforestation) and increased greenhouse gases
- Other human factors also modify the carbon cycle.

AO2

There are two major factors modifying the carbon cycle – the burning of fossil fuels and deforestation – yet the evaluation of their relative importance is challenging, as although use of renewables is increasing, most countries, particularly developing countries continue to rely heavily on fossil fuels. Deforestation continues as a major threat but is being balanced by afforestation to some extent.

Mark scheme:

A top band answer will be one that demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) but also makes relevant connections, supported by evidence. There are supported judgements about the significance of the identified factors, producing a balanced argument. (AO2)

Evaluate on Paper 3 questions

Paper 3 Evaluation questions have different mark tariffs, (for example, 18 and 24 marks in the SAMs exemplar which are explained below). As resources are provided, students are expected to use material from the Resource Booklet (AO3 Skills) as well as applying their own knowledge and understanding (AO1 and AO2). The AO weighting is therefore slightly different to 'evaluate' questions elsewhere in the paper and at AS.

18 marks: AO1 (3 marks) /AO2 (9 marks) /AO3 (6 marks)

24 marks: AO1 (4 marks) /AO2 (12 marks) /AO3 (8 marks)

Q6 Evaluate the view that the natural resources found in the three countries shown are more of a 'curse' than a 'blessing' for their people and environment. (24)AO1 (4 marks)/AO2 (12 marks)/AO3 (8 marks)

There is no 'correct' answer here, although answers that argue 'more curse than blessing' are likely to be the most common; answers should present both sides and use evidence from the Resource Booklet to support their assertions.

AO1

Expect reference to information in the resources about jobs and environmental issues.

AO2

Expect evaluative comments that weigh up points, such as it might be seen as a curse for the people is that many jobs in the oil industry might not go to local people but instead immigrants from the West/China. Also, TNC profits are likely to be repatriated; leaving little for governments in tax revenue and so little improvement in basic HDI stats and so a curse.

There are numerous other possibilities.

AO3

Answers are expected to use the resources to support their argument, for example:

Figure 12, View 4 argues that resource rich countries benefit in terms of economic growth (ordinary people may not). Also, the resources show that deforestation is slow compared to other areas, but this may not last as significant areas of DRC have been licensed for artisanal and commercial logging ensuring future degradation

6.7 Paper 3

This paper is different in design and style to the other A level papers. As stated above, 2 hours and 15 minutes are allowed, but 15 minutes of this is allocated as reading time. The use of this time is up to individual students.

This 70-mark paper is based on a synoptic investigation that assesses the use of geographical skills and application of knowledge and understanding drawn from the compulsory topics in the specification content. The investigation is set in an unseen, unfamiliar scenario, and consists largely of extended writing items. The marks per question increase through the paper, culminating in one 18-mark and one 24-mark question.

The initial questions focus on individual figures, followed by more holistic thinking, based on multiple figures, until the final question which could lead to reference to any figure in the resource booklet. The marks awarded here include a higher level of expectation of 'analysis' of data, and test the student's ability to select from a range of data available and assess significance and draw meaningful evaluations and judgements.

6.8 Independent Investigation

Overview

The Independent Investigation provides a key opportunity for students to 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. For those who go on to study Geography at university, this preparation will be invaluable.

There will be a free Independent Investigation Title Approval Service. This will be particularly useful for centres lacking experience of supporting students through independent research in Geography, or where a student is keen to follow a research topic outside the expertise of the teacher.

Appendix 13 gives clear information on the level of guidance a teacher may provide for a student. Guidance is permitted at two stages of the Independent Investigation:

- Investigation title stage (guidance and approval)
- Planning and investigation stage (guidance and approval).

The student's investigation needs to incorporate both **fieldwork data** (collected individually or as part of a group) and **own research and/or secondary data**

- The investigation report, **3000–4000 words**, will include independent analysis and evaluation of data, presentation of data findings and extended writing.
- It is recommended that a student's coursework should be 3000-4000 words and definitely no more than **10%** below or above this recommendation as it is likely that they will not be able to satisfy the requirement to produce a concise, structured report. Words included in tables, graphs, annotations, quotations and references do not need to be included in the word count. Tables must not be used for extended writing as a method of exceeding the word count.
- Students must have equal access to IT resources. Students should have access to a range of resources, literature and texts to enable them to make choices as required for their research task.

Creating the task/Choosing a topic and title

- Student defines a question or issue for investigation.
- The topic may relate to any aspect of geography contained within the specification.
- The fieldwork which forms the focus and context of the Independent Investigation may be either human, physical or integrated physical-human.

Supporting students (see Appendix 6 in specification)

- At the initial 'Exploring Focus' stage, centres may want to give candidates a free choice of investigations focusing on any of the compulsory or optional content or they may wish to provide candidates with a theme or a range of themes.
- However, it is not acceptable for candidates to choose from a list of titles or investigations provided by the centre. Candidates may discuss together, and with their teacher, ideas and research for appropriate geographical questions.
- Following the first stage candidates must finalise the draft title of their investigation. This must be done by each candidate on his/her own. In the Geography Independent Investigation form and final written report candidates must provide a clear justification and contextualisation of how their enquiry will help them to address their title and explore their theme in relation to the chosen geographical location.
- Candidates may collaborate when planning and selecting methodologies / sampling strategies, and when carrying out primary data collection.
- Secondary data collection, presentation of data/information, analysis and explanation/interpretation and conclusions and evaluation must all be carried out independently.

- The Independent Investigation report may be completed at school/college, or at home (or other location outside school/college), or at a combination of both.
- Centres should develop 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 Street View to assess likely hazards and risk.
- Students who might be working alone should be provided with additional information and support from staff.

Marking guidance (see Appendix 7 in specification)

- Students must sign the candidate declaration in both the Geography Independent Investigation Form (Appendix 5) and mark sheet (Appendix 7).
- Candidates' investigations must be internally assessed by centres, annotated to indicate how and why marks have been awarded, and internally standardised, following the procedures specified in section 6.1 and 6.2 of the JCQ Instructions for conducting non-exam assessments. Teachers should mark the Independent Investigation report using the assessment criteria available on pages 73–79 of the A level specification.
- The Independent Investigation is then externally moderated. There is a maximum of 70 marks available for the Independent Investigation.
- Samples of marked Independent Investigations will be available for guidance.

Coursework assessment criteria

Marks must be awarded for each of the following criteria, using the levels-based mark scheme provided (pages 73–79 of the A level specification):

- Purpose of the Independent Investigation (12 marks)
 - This section assesses the extent to which a student shows geographical knowledge and understanding of their location and theme and links this to a broader context, investigates a wide range of relevant geographical sources, and researches information for an aim, question or hypothesis at a manageable scale.
- Field Methodologies and Data Collection (10 marks)
 - This section focuses on selection of appropriate methods, and sampling framework and shows an understanding of the ethical dimensions of field research methods. It assesses whether data and information are reliable with accuracy/precision.
- Data Representation, Analysis, Interpretation and Evaluation of Techniques and Methodologies used (24 marks)
 - Here use of appropriate geographical skills to deconstruct data is assessed. Students should make evidenced connections and discuss the statistical and geographical significance of clearly presented data. Evidenced-based conclusions should be clearly communicated.
- Conclusions and Critical Evaluation of the Overall Investigation (24 marks)
 - The final marks are awarded for the geographical understanding shown in the investigation's conclusions, which should be extended to broader contexts. The validity of conclusions should be considered, and reasoning should be logical and use appropriate terminology.

Moderation process

All completed and marked Independent Investigations must be submitted to Pearson accompanied by the required paperwork by the date stated in May before the final Exams are taken. These will be returned in due course after Results Day and Enquiry After Results dates have passed each August.