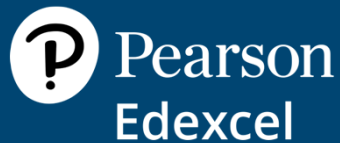


Pearson Edexcel International GCSE Geography

Understanding Assessment and
Improving Delivery in
International GCSE Geography





Aims and objectives

- Introduce the two different types of assessment routes
- Introduce the concept of assessment objectives: what are they and why they are used when writing examination papers
- Analyse recent question papers and learn which types of questions match the different assessment objectives
- Investigate different assessment objectives, considering how questions have been answered by looking at feedback from the previous exam series
- Discuss strategies for teaching to help students access questions targeting different assessment objectives
- Review the support Pearson offers for teaching the qualification
- Network, discuss best practice and share ideas with other teachers



Agenda

- Welcome
- Specification Design and key documentation
- The assessment
- The content
- Case Studies
- Fieldwork and the Geographical Enquiry process
- Skills
- Assessment Objectives
- Question types
- Command words
- Support



Welcome to Pearson

Welcome to Pearson Edexcel

- We are the world's leading learning company and as the **UK's largest awarding organisation**, best placed to provide qualifications aligned to the British educational system.
- Our international **heritage** stretches back over **150 years**.
- Today, we partner with schools, universities and employers worldwide, offering world-class, globally-recognised qualifications to over **3.5 million students a year**.



Trusted and recognized qualifications partner to **6,500** schools, colleges and employers globally



We mark over **10 million** exam scripts on behalf of the UK Department for Education each year

We operate in **70 countries** worldwide

Specification Design and key documentation

The specification

- The Specification contains all the key information required for teaching the course.
- It can be downloaded directly from the Pearson website.
- Many other useful materials can also be downloaded from the website.





What does the specification contain?

- **Qualification structure:** an overview of the content and assessment
- **Geography Content:** divided into the two papers/units
- **Paper/Unit 1:** Physical Geography
- **Paper/Unit 2:** Human Geography
- **Assessment information:** overview of the paper structure and the assessment objectives.
- **Definitions and command words:** includes command words that can be tested in the exams
- **Geographical skills:** the skills that can be tested in the exams
- **Practical geographical enquiry process:** an overview of the different stages of the enquiry process
- **Fieldwork (including health and safety in the field):** the requirements for fieldwork
- **Transferable skills:** other skills that can be taught through International GCSE Geography



Specification

Course materials

Published resources

News

Switch to Pearson Geography

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International GCSEs Geography (2017)



International GCSEs Geography (Modular)

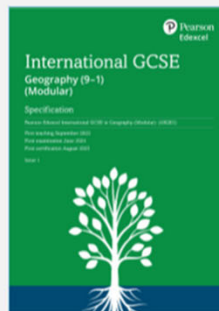


Specification



DOWNLOAD

Specification



DOWNLOAD

PDF | 889.7 KB

Teaching from: 2023

External assesment from: 2024

Certification from: 2025

Our new modular assessment route breaks the journey into units with an exam at the end of each unit, when the student feels prepared and ready. Whichever route you choose, the exams take the same amount of time, teachers spend the same amount of time teaching, and everyone has the best chance of success at international GCSE.

This modular assessment route is only available to schools outside of the UK.

Planning on teaching this qualification?

Find out more about Pearson Edexcel International qualifications and sign up to receive the latest news.

Let us know

Course materials

- Specification and sample assessments (2)
- Exam materials (19)
- Forms and administration (1)
- Teaching and learning materials (5)



The Assessment



The assessment model

This tells us how we assess candidates.

Key features:

- The choice of Linear or Modular examinations
- Fieldwork skills are assessed in both exam papers, including questions on familiar and unfamiliar fieldwork contexts.
- Paper/Unit 1 focuses on physical geography.
- Paper/Unit 2 focuses on human geography.
- Both papers grade from 9–1

Why a choice of linear or modular assessment?

The secret of International GCSE success is different for every student.

Doing all the assessment at the end works well for many (linear)

But we know that spreading the exam pressure works better for others (modular)

The linear journey remains exactly as it is, two years of study with exams at the end

The modular route breaks the journey into units, with an exam at the end of each unit

Whichever route you choose, the exams take the same amount of time, teachers spend the same amount of time teaching, and everyone has the best chance of success at international GCSE.

IG Geography Modular Key Changes

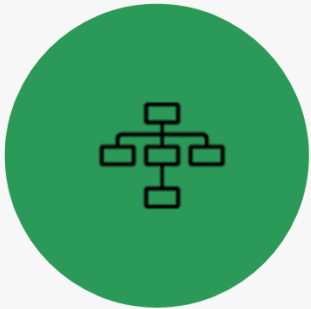
Modular route

Unit assessments can be taken over multiple exam series (no tier)

Grades are calculated on raw marks which are then converted to a UMS (Uniform Mark Scale).

Students can re-sit individual units in any exam series.

Once a student has all their unit results, they can 'cash in' these results for their grade.



A modular route is only offered by Pearson Edexcel at International GCSE

Linear route

Assessments for all units are taken together in one exam series (no tier).

Grades are calculated on raw marks only.

Students can re-sit assessments for all units together in one exam series.

The grade students receive are calculated at the end of the exam series in which they sat their assessments.



Everything else remains the same, including content and level of demand in assessments

Geography, a closer look, Paper 1

The modular and linear approach cover the same content and paper structure.

Paper 1	
Linear	Modular
1-hour-10-minute written examination.	1-hour-10-minute written examination.
The total number of marks is 70, 40% of the total International GCSE.	The total number of marks is 70, 40% of the total International GCSE.
Content summary <ul style="list-style-type: none">• River environments• Coastal environments• Hazardous environments This Includes fieldwork from one of these topics.	Content summary <ul style="list-style-type: none">• River environments• Coastal environments• Hazardous environments This Includes fieldwork from one of these topics.
Assessment <p>Questions are a mixture of multiple-choice, short-answer, data-response and open-ended questions.</p> <ul style="list-style-type: none">• Section A: Candidates choose two out of three questions on the three topics above.• Section B: Candidates choose one of three fieldwork-related questions on the three topics above.	Assessment <p>Questions are a mixture of multiple-choice, short-answer, data-response and open-ended questions.</p> <ul style="list-style-type: none">• Section A: Candidates choose two out of three questions on the three topics above.• Section B: Candidates choose one of three fieldwork-related questions on the three topics above.

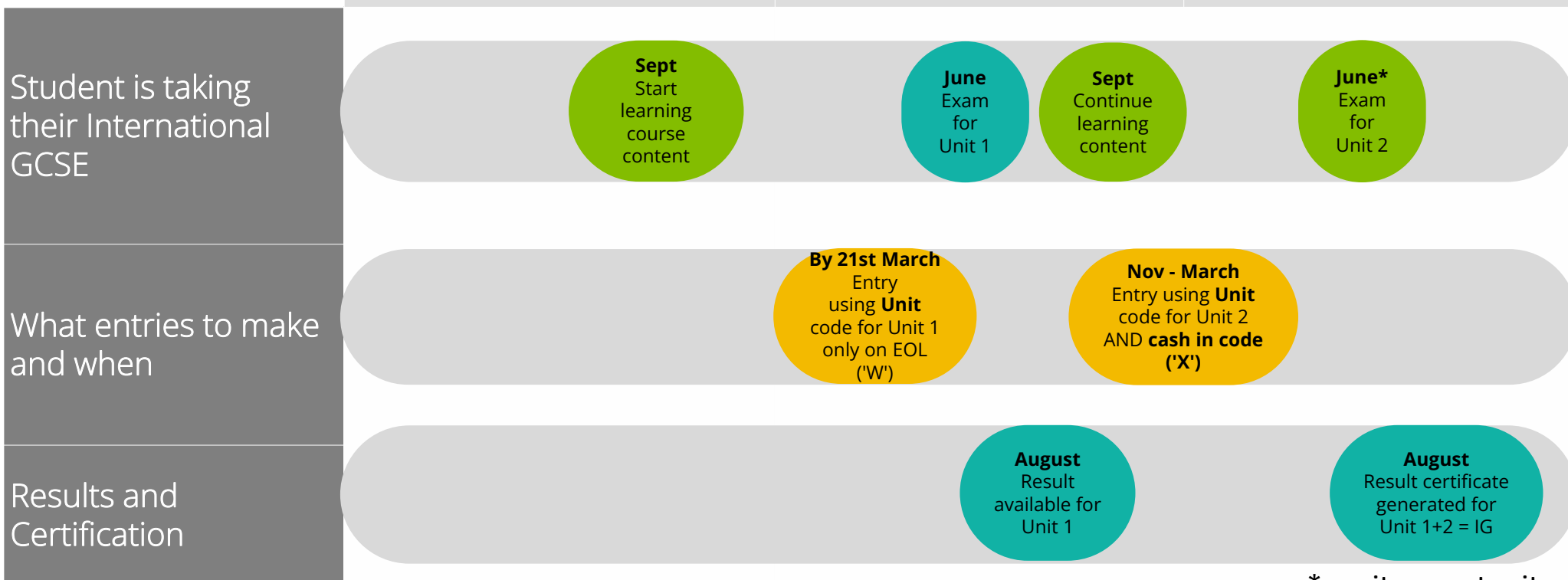
Geography, a closer look, Paper 2

The modular and linear approach cover the same content and paper structure.

Paper 1	
Linear	Modular
1-hour-45-minute written examination.	1-hour-45-minute written examination.
The total number of marks is 105, 60% of the total International GCSE.	The total number of marks is 105, 60% of the total International GCSE.
Content summary <ul style="list-style-type: none">• Economic activity and energy• Rural environments• Urban environments This Includes fieldwork from one of these topics.	Content summary <ul style="list-style-type: none">• Economic activity and energy• Rural environments• Urban environments This Includes fieldwork from one of these topics.
Assessment <p>Questions are a mixture of multiple-choice, short-answer, data-response and open-ended questions.</p> <ul style="list-style-type: none">• Section A: Candidates choose two out of three questions on the three topics above.• Section B: Candidates choose one of three fieldwork-related questions on the three topics above.• Section C: Candidates choose one out of three questions on: fragile environments and climate change, globalisation and migration, development and human welfare.	Assessment <p>Questions are a mixture of multiple-choice, short-answer, data-response and open-ended questions.</p> <ul style="list-style-type: none">• Section A: Candidates choose two out of three questions on the three topics above.• Section B: Candidates choose one of three fieldwork-related questions on the three topics above.• Section C: Candidates choose one out of three questions on: fragile environments and climate change, globalisation and migration, development and human welfare.

A student's IG Geography modular journey

Modular pathway



*re-sit opportunity 16

The benefits of a modular approach

Students



- ✓ Reduces students' **mental load** and **stress** by allowing them to focus on one year of curriculum at a time and spreads out their exams over 2 years.
- ✓ Provides more **opportunities** to demonstrate their skills and abilities and optimise feedback to improve their performance.
- ✓ Allows them to take exams when they're ready, like they do with other tests, and take advantage of multiple **re-sit** opportunities.

Educators & Parents



- ✓ Provides teachers with rich mid-cycle data on learner **performance** via post-exam analysis support tools such as Results Plus.
- ✓ **Eases the pressures** faced by exam officers as it allows international schools to spread the exam admin burden.
- ✓ Where parents pay exam fees, it helps with **budgeting** by enabling families to spread their child's exam fees over two years.

Modular Overview

IG Geography Modular Overview

Teaching and Learning

120 GLH

- Specification
- Sample assessment materials
- Getting Started Guides
- Teacher Course planners
- Scheme of Work

Assessment

Separate:

Unit 1- Physical Geography
Unit 2 Human Geography

- Nov & June Series
- Resit opportunities (no limit)
- + Exemplar materials
- + Examiner reports
- + Past papers
- + Exam Wizard
- + Results Plus



Question for you

How do you see the Modular assessment pathway supporting your students?



Possible suggestions

- Students may find it easier to break down the content into two separate exam sessions.
- The expectation is that Paper 1 will be taken at the end of the first year of teaching, allowing students to monitor their progress.
- Results of Paper 1 and 2 do not have to be taken in the same exam series.



Teaching in a Modular Way

You may want to change the way you teach the International GCSE Geography Specification Content if you take the Modular route for assessment.

- To support your planning and teaching of the course, we are producing **course planners**, **editable schemes of work** and **Getting Started Guide**. These are available on the website to download.
- First teaching for International GCSE Geography (Modular) is September 2023
- First assessment of International GCSE Geography (Modular) is May/June 2024



Planning to teach modular International GCSE Geography

Suggest 3 things that need to be taken into account when changing to a modular approach.



Considerations

- Although the total content is the same, topics have to be taught in a certain order for candidates to understand the synoptic nature of Section C in paper 2.
- Topics 1, 2 and 3 are examined in Paper 1.
- Topics 4, 5, 6, 7, 8, 9 are examined in Paper 2.
- Fieldwork skills are covered in both papers.

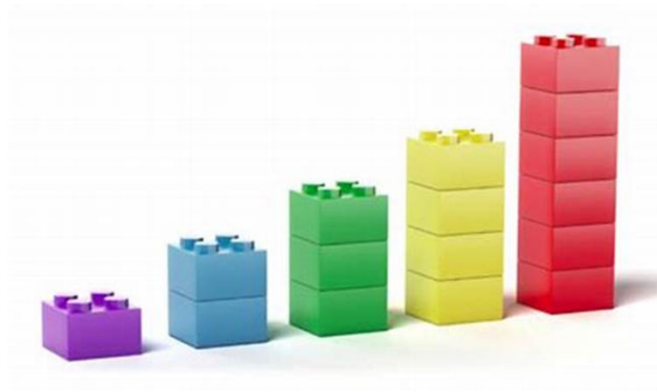


Re-sits for Modular International GCSE

- Learners can re-sit any unit irrespective of whether the qualification is to be cashed in.
- If a learner resits a unit more than once, only the better of the two most recent attempts of that unit will be available for aggregation to a qualification grade.
- Results of units will be held in Pearson Edexcel's unit bank for as many years as this specification remains available.
- Once International GCSE in Geography (Modular) has been certificated, all unit results are deemed to be used up at that level. These results cannot be used again towards a further award of the same qualification at the same level.

The Content

Supporting progression



Provides the foundational knowledge for IAL

IG

IAL


	or plate boundaries and hotspots. (2)
3.2 Hazards have an impact on people and the environment	a) Reasons why people continue to live in areas at risk from hazard events. b) Some countries are more vulnerable (physically, socially and economically) than others to the impacts of natural hazards. c) The shorter-term and longer-term impacts of one earthquake one volcano and one tropical cyclone hazard (3).



Key idea	Detailed content
Some locations are especially vulnerable to multiple hazard processes	<ul style="list-style-type: none"> The concept of multiple hazard zones and why some locations are considered hazard hotspots due to the frequency of different hazards events (📍 Philippines and California). The human and economic costs of disaster events in multiple hazard zones may have an effect on economic development and potential (📍 Philippines and California).
Rare, high magnitude disaster events can have regional or global significance	<ul style="list-style-type: none"> The concept of mega-disasters (tsunami, earthquakes, regional drought) that affect more than one country with unusually large human and economic impacts. The implications for regional economies and the global economy of mega-disasters both in terms of impacts and the scale of the required response (📍 2004 Asian tsunami or 2011 Japanese tsunami). (4)

Linear and Modular – Paper 1 Topics

Topic 1 River environments	Topic 2 Coastal environments	Topic 3 Hazardous environments
Key ideas 1.1 The world's water supply is contained in a closed system 1.2 Physical processes give rise to characteristic river landforms 1.3 River environments area of great importance to people and need to be sustainably managed	Key ideas 2.1 Physical processes and human intervention give rise to characteristic coastal landforms 2.2 Distinctive ecosystems developed along particular stretches of coastline 2.3 Coastal environments are of great importance to people and need to be sustainably managed	Key ideas 3.1 Some places are more hazardous than Others 3.2 Hazards have an impact on people and the environment 3.3 Earthquakes present a hazard to many people and need to be managed carefully



Linear and Modular – Paper 1 Fieldwork

Students are required to complete **one** geographical enquiry involving fieldwork relating to **one** topic in Paper 1.

Paper 1: Physical geography

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

Centres must ensure that:

- Primary data collection includes quantitative and qualitative techniques.
- Secondary data collection includes the use of at least **two** different secondary data sources for your chosen environment.

In Section B of each paper will have questions that relate to the fieldwork enquiry process in familiar and unfamiliar contexts.

The structure will either be:


- Short answer questions (unfamiliar fieldwork context)
- Extended response 8 mark question (familiar fieldwork context)

OR

- Short answer questions (familiar fieldwork context)
- Extended response 8 mark question (unfamiliar fieldwork context)

Linear and Modular – Paper 2 Topics

Topic 4 Economic activity and energy	Topic 5 Rural environments	Topic 6 Urban environments
<p>Key ideas</p> <p>4.1 The relative importance of different economic sectors and the location of economic activity varies spatially, and changes over time</p> <p>4.2 The growth and decline of different economic sectors has resulted in a range of impacts and possible resource issues</p> <p>4.3 Countries increasingly experience an energy gap and therefore seek energy security by developing a balanced energy mix and sustainable energy use</p>	<p>Key ideas</p> <p>5.1 Rural environments are natural ecosystems that are exploited by human activities</p> <p>5.2 Rural environments have contrasting physical, social and economic characteristics and are experiencing significant changes</p> <p>5.3 Rural environments need to adapt to be socially, economically and environmentally sustainable</p>	<p>Key ideas</p> <p>6.1 A growing percentage of the world's population lives in urban areas</p> <p>6.2 Cities face a range of social and Environmental challenges resulting from rapid growth and resource demands</p> <p>6.3 Different strategies can be used to manage social, economic and environmental challenges in a sustainable manner.</p>



Linear and Modular – Paper 2 Fieldwork

Students are required to complete **one** geographical enquiry involving fieldwork relating to **one** topic in Paper 2.

Paper 2: Human geography

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

Centres must ensure that:

- Primary data collection includes quantitative and qualitative techniques.
- Secondary data collection includes the use of at least **two** different secondary data sources for your chosen environment.

Each paper will have questions that relate to the fieldwork enquiry process in familiar and unfamiliar contexts.

The structure will either be:

- Short answer questions (unfamiliar fieldwork context)
- Extended response 8 mark question (familiar fieldwork context)

OR

- Short answer questions (familiar fieldwork context)
- Extended response 8 mark question (unfamiliar fieldwork context)

Linear and Modular – Paper 2 Topics

Topic 7 Fragile environments	Topic 8 Globalisation and migration	Topic 9 Development and human welfare
<p>Key ideas</p> <p>7.1 Fragile environments are under threat from desertification, deforestation and global climate change</p> <p>7.2 There are various impacts of desertification, deforestation and climate change on fragile environments</p> <p>7.3 The responses to desertification, deforestation and climate change vary depending on a country's level of development</p>	<p>Key ideas</p> <p>8.1 Globalisation is creating a more connected world, with increased movements of goods (trade) and people (migration and tourism) worldwide</p> <p>8.2 The impacts of globalisation vary on a global scale</p> <p>8.3 The responses to increased migration and tourism vary depending on a country's level of development</p>	<p>Key ideas</p> <p>9.1 Definitions of development and human welfare vary, as do attempts to measure it</p> <p>9.2 The level of development and human welfare varies globally and has had a range of consequences</p> <p>9.3 A range of sustainable strategies is required to address uneven levels of development and human welfare</p>

Teaching considerations & supporting student progress

- Same considerations that you would have with a linear course e.g. sequencing, threshold concepts, development of disciplinary and substantive knowledge, interleaving etc.
- June & November series -Multiple combinations of papers e.g.

Example 1

- Unit 1 end of Y10 (June)
- Unit 2 end of Y11 (June)

Example 2

- Unit 1 Y10 (June)
- Unit 1 re-sit Y11 (Nov)
- Unit 2 end of Y11 (June)

Example 3

- Unit 1 & Unit 2 Y11 (Nov)
- Unit 2 re-sit Y11 (June)

Case studies and named examples

Case studies and named examples in the content

6.2 Cities face a range of social and environmental challenges resulting from rapid growth and resource demands	<p>transport, employment, crime and environmental issues. (2)</p> <p>a) Factors affecting urban land use patterns: locational needs, accessibility, land values. (3)</p> <p>b) Urban challenges in a named developed country 📍: food, energy, transport and waste disposal demands, concentrated resource consumption, segregation. (4)</p> <p>c) Urban challenges in a named developing country 📍 or emerging country 📍: squatter settlements, informal economy, urban pollution, and low quality of life.</p>
---	---

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

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

Case studies in the questions

(g) For a named developed country, explain **two** ways tourist pressures can affect rural areas.

(4)

Named developed country

1 _____

2 _____

b) Factors leading to rural changes in a named developed country
 📍: rural isolation, decline in farm employment, tourist pressures, suburbanisation, counter-urbanisation, and the negative multiplier effect.

(h) Study Figure 1c in the Resource Booklet.

Analyse the reasons for differences in the energy mix of these two regions.

You **must** refer to the resource in your answer.

(8)

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

<p>4.3 Countries increasingly experience an energy gap and therefore seek energy security by developing a balanced energy mix and sustainable energy use</p>	<p>a) Energy demand and production varies globally and is affected by a range of factors: population growth, increased wealth and technological advances.</p> <p>b) Non-renewable, e.g. coal, oil, natural gas, uranium and shale gas/oil, and renewable sources of energy, e.g. solar, wind, hydroelectric power (HEP), geothermal, biomass, have advantages and disadvantages for people and the environment.</p> <p>c) Energy can be managed in a sustainable way through education, efficiency and conservation (within industry, transport and the home). (5)</p>
--	--

Case studies in the questions

(c) Explain **one** advantage and **one** disadvantage of top-down development projects.

(4)

Advantage

Disadvantage

(f) Discuss the view:

“Deforestation is the greatest threat to fragile environments.”

Use Figures 7b and 7c from the Resource Booklet, and your own knowledge and understanding to support your answer.

You **must** refer to the resources in your answer.

(12)

(f) Discuss the view:

“Countries which have contributed the most to climate change should be responsible for leading the actions to combat climate change.”

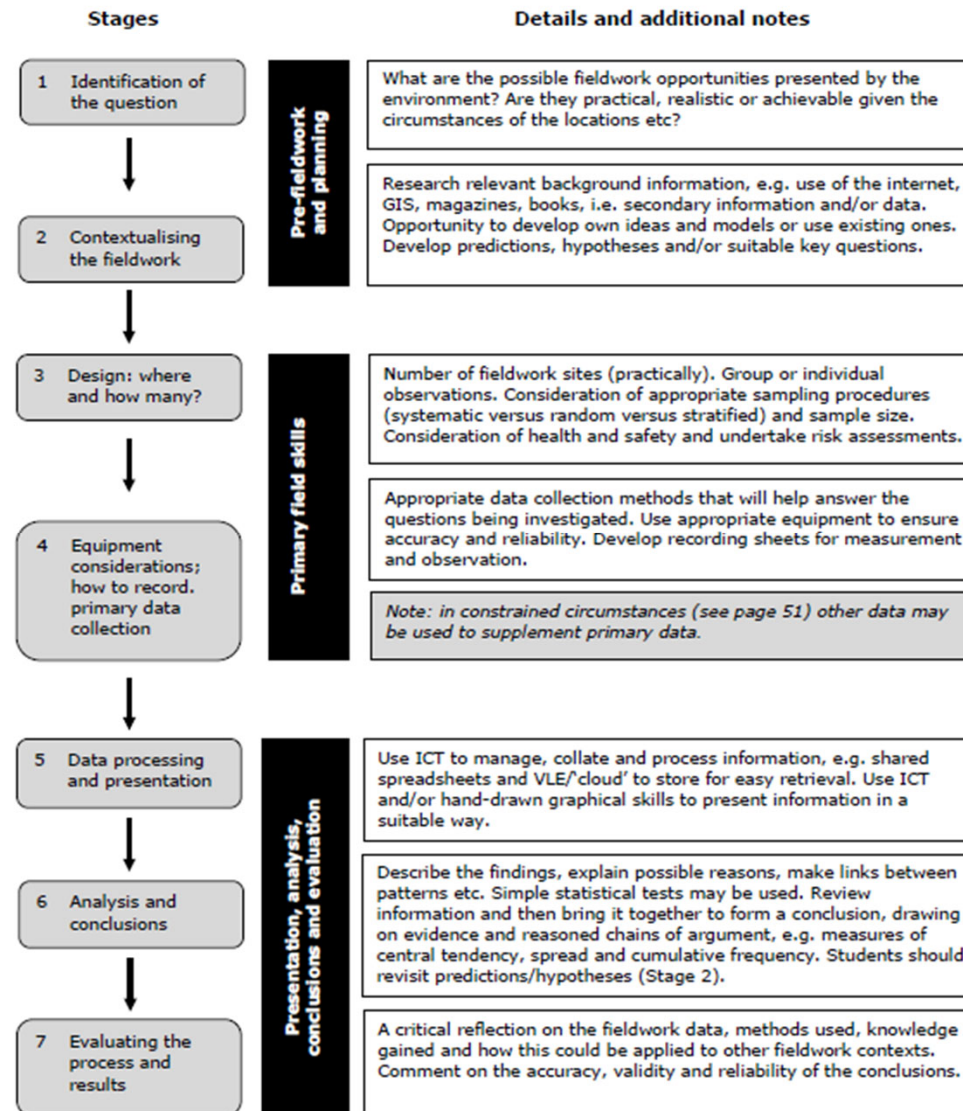
Use Figures 7b and 7c from the Resource Booklet, and your own knowledge and understanding to support your answer.

You **must** refer to the resources in your answer.

(12)

Fieldwork and the geographical enquiry process

Appendix 5: Practical geographical enquiry process





Activity 1

Thinking about your fieldwork experience:

- Are students aware of the different stages of the enquiry process?
- Do they find it easier or more challenging to write about particular stages of the enquiry process?
- What strategies could you use to support them in this part of the qualification?



Suggestions

- Explore clearly the different stages of the enquiry process.
- Make sure students can clearly distinguish between methods and techniques used.
- Make sure students can clearly justify their choices for any stage in the enquiry process.
- Use past papers to practice evaluation skills.



Fieldwork Skills

Practical skills

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

Cognitive enquiry skills

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

Fieldwork Contexts – Paper 1

Section B	Geographical enquiry	Suggested methods of primary and secondary data collection for familiar fieldwork contexts	What students need to learn for unfamiliar primary and secondary fieldwork contexts in Paper 1
River environments	Investigation of river processes and form through primary and secondary fieldwork evidence	<p>Primary Quantitative e.g. (1) channel measurements - velocity, width, depth and gradient (2) measurements of sediment - size and shape Qualitative e.g. (1) annotated field sketches of the river channel and its features, (2) photographs to show how the channel changes downstream</p> <p>Secondary (1) A GIS topographic map, e.g. from ArcGIS Online or Google Earth, (2) local secondary data on river flows or regimes</p>	<p>Primary Quantitative • River channel characteristics: width, depth and velocity • River gradient</p> <p>Qualitative • Annotated field sketches</p> <p>Secondary • GIS topographic map</p>

Fieldwork Contexts – Paper 1

Section B	Geographical enquiry	Suggested methods of primary and secondary data collection for familiar fieldwork contexts	What students need to learn for unfamiliar primary and secondary fieldwork contexts in Paper 1
Coastal environments	Investigation of coastal processes and form through primary and secondary fieldwork evidence	<p>Primary Quantitative e.g. (1) sediment size and shape measurements, beach profile survey, (2) measurement of erosional features - a cliff or intertidal zone Qualitative e.g. (1) annotated field sketches of particular coastal features, (2) photographs to show how there are variations along a stretch of the coast.</p> <p>Secondary (1) A local geology map (paper or digital), (2) local secondary data on coastal change, e.g. historic maps.</p>	<p>Primary Quantitative</p> <ul style="list-style-type: none"> • Sediment: size and shape • Beach profile <p>Qualitative</p> <ul style="list-style-type: none"> • Annotated field • Sketches <p>Secondary</p> <ul style="list-style-type: none"> • Local geology map

Fieldwork Contexts – Paper 1

Section B	Geographical enquiry	Suggested methods of primary and secondary data collection for familiar fieldwork contexts	What students need to learn for unfamiliar primary and secondary fieldwork contexts in Paper 1
Hazardous environments	Investigation of physical processes involved in an extreme weather event through the recording of primary and secondary fieldwork evidence	<p>Primary Quantitative e.g. (1) recording of a weather diary and local risk and hazard maps, (2) structured questionnaire about hazard perception Qualitative e.g. (1) annotated field sketches to show evidence of an extreme weather event, (2) photographs / video taken before, during and after the extreme weather event</p> <p>Secondary (1) An online feed from a local weather station, e.g Wunderground, (2) local secondary data on weather events, e.g. newspapers, online accounts.</p>	<p>Primary</p> <p>Quantitative</p> <ul style="list-style-type: none"> Weather diary: wind, rain, temperature, and air pressure Local risk and hazard mapping <p>Qualitative</p> <ul style="list-style-type: none"> Annotated field sketches <p>Secondary</p> <ul style="list-style-type: none"> Local live feed of an extreme weather event.

Familiar fieldwork contexts- short answer

(a) Describe **one** advantage of a sampling strategy used in your investigation.

(2)

Named sampling strategy

(b) Explain **one** qualitative primary data collection technique you used in your enquiry.

(2)

(c) Explain **two** reasons for the technique(s) chosen, for example graph, map or diagram, to present your primary or secondary data/information.

(4)

1

2

(a) (i) Name **one** type of graph you used to present your data.

(1)

Familiar fieldwork contexts – extended response

(e) You have studied a coastal environment as part of your own geographical enquiry.

Evaluate how effective your site selection and sampling strategies were in helping you answer your enquiry title.

(8)

Geographical enquiry title

(e) You have studied a hazardous environment as part of your own geographical enquiry.

State the title of your geographical enquiry.

Evaluate the accuracy and reliability of your conclusions.

(8)

Geographical enquiry title

Unfamiliar fieldwork contexts – short answer

(b) Study Figure 4c in the Resource Booklet. It shows information about the sampling strategy used in the collection of river data.

Explain **one** advantage and **one** disadvantage of using this sampling strategy.

(4)

Chosen sampling strategy

Advantage

Disadvantage

(d) (i) Study Figure 6b in the Resource Booklet.

Plot the data for sites 2 and 4, from Figure 6b (shown in the Resource Booklet), on Figure 6c (below).

(2)

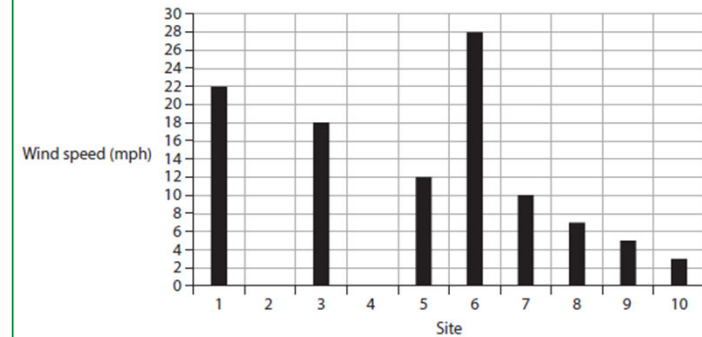


Figure 6c

Wind speed at each site

(ii) Identify at which site there is an anomaly.

(1)

(iii) Suggest **one** possible reason for the anomaly in wind speed on Figure 6c.

(3)

Unfamiliar fieldwork – extended response

- (e) Study Figures 4a and 4b in the Resource Booklet. They show some of the data presentation methods used by the student.

The aim of the student's enquiry was to investigate the impact of a new wind farm on a local village.

The student collected data at five sites near the wind farm. The data included an environmental quality survey, a questionnaire with people in the local village and taking photographs.

Evaluate the data presentation methods used by the student.

You **must** refer to the resources in your answer.

(8)

- (e) Study Figure 5a and Figure 5b in the Resource Booklet. They show some information about data collection methods from a student's enquiry.

The aim of the student's enquiry was to determine the most important factor affecting a beach profile.

Evaluate how far the data collection methods used supported the student in achieving their aim.

(8)



Activity 2: Evaluation in fieldwork

Thinking about fieldwork:

- Are there any stages in the fieldwork enquiry process students find more challenging to evaluate?
- What strategies can be used to encourage development of skills in evaluation?
- What opportunities do students have during the course to evaluate different fieldwork scenarios?



Considerations

- Understanding the geographical enquiry process and the various method is an important part of the IGCSE Geography for both papers.
- It is important students have the opportunity to conduct their own fieldwork to gain experience of the different stages, and are involved in making decisions about how to collect, analyse and evaluate data and finding to respond to geographical questions.
- It is important to provide students the opportunity to interpret different fieldwork scenarios – there are a range of past paper.

Schemes of Work



Geography Schemes of Work

- Pearson publish an editable scheme of work
- It has an order which is the same as the specification
- The topics can be taught in any order, and this will depend on individual circumstances
- It has suggested activities for all topics.
- The order and timings will depend if the course is taught over one, two or three years.

Paper 2: Human geography – Section C



Lesson	Specification reference	Learning Objective	Content	Resources	Which skills acquired in this lesson are explicitly assessed through examination?	Which skills could be delivered through teaching and delivery in this lesson?
Component 2 Section C Topic 7 fragile environments and climate change						
1	<p>7.1 Fragile environments are under threat from desertification, deforestation and global climate change</p> <p>a) Distributions and characteristics of the world's fragile environments</p>	<p>Learning Objective: To understand the distribution and characteristics of the world's fragile environments.</p> <p>Skills objective: To be able to use world maps to show the location of fragile environments.</p>	<p>Should include: The location of fragile environments.</p> <p>Why are some environments more fragile than others?</p> <p>Human (population / industry) and physical (climate / soils) characteristics which contribute to an environment's fragility.</p>	<p>Resources: International GCSE text book pg.184 - 185</p> <p>WWF Living Planet report 2010</p> <p>Living Planet 2010 Ecological footprint calculator: http://footprint.wwf.org.uk</p> <p>Lesson ideas: Using photos of fragile environments, ask students to suggest their global location and why they are under threat.</p> <p>Calculate personal ecological footprints using a website.</p>	<p>Interpretation</p> <p>Analysis</p> <p>Atlas and map skills</p> <p>Numerical skills</p>	<p>Interpretation</p> <p>Analysis</p>



Activity 3: What order should we teach the topics in?

- Suggest **three topics** that you think should be covered at the **start** of the course.
- Suggest **two topics** that you think should be taught at the **end** of the course.
- Suggest **one topic** that is '**synoptic**' – this means that it links to many other areas of the specification, for both linear and modular. Try to find where links could be made between areas of the specification.
- Discuss **why** you made these suggestions.



There is no one correct order of teaching topics

- You can change the order to suit schools / classes / teaching styles.
- Seasonal availability for example when it is practical to do fieldwork.
- 'Underpinning topics' need covering early – river processes before landforms.
- Some topics/skills might be considered to be more difficult. It is important to ensure there is sufficient time to cover these.
- Some topics require knowledge from other areas of the course – climate change responses require and understanding of climate change.
- Use topics to revisit themes – helps pupil understanding and 'deepen learning.'
- Some topics draw everything together (synoptic)– this is particularly important for Section C of Paper 2.

Activity 4: What other areas of the specification link to this topic?

7.2 There are various impacts of desertification, deforestation and climate change on fragile environments	<ul style="list-style-type: none">a) Social, economic and environmental impacts of desertification (reduced agricultural output, malnutrition, famine, migration).b) Social, economic and environmental impacts of deforestation (loss of biodiversity, contribution to climate change, economic development and increased soil erosion).c) Negative effects that climate change is having on fragile environments and people (rising sea levels, more hazards, ecosystem changes, reduced employment opportunities, changing settlement patterns, health and wellbeing challenges, including food supply). (5)
--	---

There are links to these specification points

Topic 7

7.2 There are various impacts of desertification, deforestation and climate change on fragile environments	<ul style="list-style-type: none"> a) Social, economic and environmental impacts of desertification (reduced agricultural output, malnutrition, famine, migration). b) Social, economic and environmental impacts of deforestation (loss of biodiversity, contribution to climate change, economic development and increased soil erosion). c) Negative effects that climate change is having on fragile environments and people (rising sea levels, more hazards, ecosystem changes, reduced employment opportunities, changing settlement patterns, health and wellbeing challenges, including food supply). (5)
--	---

Topic 7

	<p>(2) and (3)</p> <ul style="list-style-type: none"> c) Causes of natural climate change (Milankovitch cycles, solar variation and volcanism) and how human activities (industry, transport, energy, and farming) can cause the enhanced greenhouse effect. (4)
--	---

Topic 2




	<p>spits and bars. (2)</p>
2.2 Distinctive ecosystems develop along particular stretches of coastline	<ul style="list-style-type: none"> a) Distributions and features of the world's coastal ecosystems (coral reefs, mangroves, sand dunes and salt marshes). (3) b) Abiotic and biotic characteristics of one named coastal ecosystem 🌿. (4) c) How small- and large-scale coastal ecosystems are threatened by people and their activities (industrialisation, agricultural practices, tourism and deforestation).



How can we help students with content?

- Give clear checklists for them each time we teach a topic.
- Encourage 'metacognition' by getting students to evaluate their own knowledge and learning of a topic.
- After tests and exams, get students to assess their 'weaker' topic areas by giving them a grid to write in their marks.

Example of a topic checklist with emoji

Key idea					
5.1 Rural environments are natural ecosystems that are exploited by human activities	5.1a	Distributions and characteristics of the world's biomes (tropical, temperate and boreal forests, tropical and temperate grasslands, deserts and tundra). (1)			
	5.1b	Examples of goods and services provided for people by natural ecosystems (timber, tourism, food, energy, water resources, health services, natural protection, and climate regulation).			
	5.1c	How humans use, modify and change ecosystems and rural environments to obtain food through farming systems (arable/pastoral, commercial/subsistence, intensive/extensive). (2)			

Test grids can be used after tests / exams

- Students fill in a test grid after getting their paper back.
- The grid gives the specification references so they can check any weaker areas.
- Assessment objectives can also be shown to help students self-identify where they lost marks.

Question	Specification reference	Max mark	My score	AO1	AO2	AO3	AO4
1ai	4.1b	1					
1aii	4.1a	1					
1b	4.2a	1					
1c	4.1c	2					
1d	4.1a	1					
1e	4.2b	4					
1f	4.3a	3					
1g	4.3b	4					
1h	4.3c	8					
Total		25	/25	/5	/9	/7	/4



Skills

Geographical skills

- The specification highlights a range of different skills that candidates should cover during their course of study.

General Skills	Quantitative skills	Practical geographical enquiry skills
Atlas and map skills	Cartographic skills	Pre-fieldwork planning
Graphical skills	Graphical skills	Primary field skills
Data and information research skills	Numerical skills	Presentation, analysis, conclusions and evaluation skills
Investigative skills	Statistical skills	

Integrated skills

What students need to learn

Key ideas	Detailed content
1.1 The world's water supply is contained in a closed system – the hydrological cycle	<p>a) The hydrological cycle: characteristics, stores and transfers.</p> <p>b) Features of a drainage basin: source, watershed, channel network, mouth.</p> <p>c) Factors affecting river regimes: precipitation, including storm hydrographs, temperature, vegetation, land use, water abstraction, dams. (1)</p>

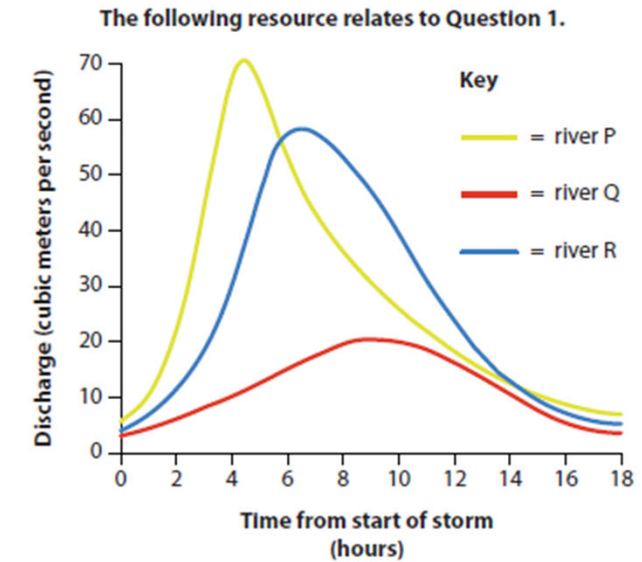


Figure 1c

Hydrograph for river P, river Q and river R

Integrated skills

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



Activity 5:

- Look at the list of skills in the specification.
- Many of these skills will be familiar to candidates starting IGCSE Geography but can you highlight any which may be considered more challenging?
- Are there any of these which you feel you could integrate more in your subject content teaching?
- What strategies could you use to improve skills?

Assessment Objectives



Assessment objectives

- There are four assessment objectives: AO1, AO2, AO3, AO4.
- Questions on the exam papers will focus on all three objectives.
- Very important that pupils are aware of how they will be assessed.
- Many pupils (and teachers) only focus on content.

Assessment objectives and weightings

- The balance of the assessment objectives is similar on Paper 1 and Paper 2/Unit 1 & Unit 2.

		% in International GCSE
AO1	Demonstrate knowledge of locations, places, processes, environments and different scale.	15–16
AO2	Demonstrate geographical understanding of: <ul style="list-style-type: none"> concepts and how they are used in relation to places, environments and processes the interrelationships between places, environments and processes. 	25–26
AO3	Apply knowledge and understanding to interpret, analyse and evaluate geographical information and issues and to make judgements.	34–35 (approx. 13% applied to fieldwork context(s))
AO4	Select, adapt and use a variety of skills and techniques to investigate questions and issues and communicate findings.	24–25 (approx. 10% used to respond to fieldwork data and context(s))

Unit number	Assessment objective			
	AO1	AO2	AO3	AO4
Paper 1	7.1%	12.9%	17.9%	12.1%
Paper 2	8.5%	12.9%	16.2%	12.4%
Total for International GCSE	15–16%	25–26%	34–35%	24–25%



AO1



Assessment objective 1 (AO1)

AO1 Knowledge and understanding

- AO1 is about understanding content.
- For geography this means demonstrating knowledge of locations, places, processes, environments and difference scale.
- Easy to revise – repetitions, testing with flash cards and questions.

Typical AO1 Questions

(a) Identify the meaning of the term 'suburbanisation'.

(1)

<input type="checkbox"/>	A Population growth on the edge of urban areas
<input type="checkbox"/>	B Population movement from one country to another
<input type="checkbox"/>	C Population growth in the centre of urban areas
<input type="checkbox"/>	D Population movement from one urban area to another

(b) Define the term 'urbanisation'.

(1)



Assessment Objective 1

- This is AO1
- The command words are identify and describe.
- It is factual information from the specification that candidates have to recall.

Mark Scheme

Question number	Answer	Mark
3(a)	AO1 (1 mark) A Population growth on the edge of urban areas	(1)

Question number	Answer	Mark
3(b)	AO1 (1 mark) • An increase in the proportion of people living in urban areas compared to rural areas, or similar (1). Accept any other appropriate response.	(1)

Activity 6: AO1 mark scheme

- This is AO1. It is factual knowledge direct from the specification.
- Write mark schemes for these two questions.

(ii) Define the term 'renewable energy source'.

(1)

(e) State **one** way that farmers can diversify to generate more income.

(1)

Mark Scheme

Question number	Answer	Mark
1(a)(ii)	<p>A01 (1 mark)</p> <ul style="list-style-type: none"> A renewable energy source can be used repeatedly/replaced naturally/is infinite/never runs out (1). <p>Accept any other appropriate response.</p>	(1)

Question number	Answer	Mark
2(e)	<p>A01 (1 mark)</p> <p>Award 1 mark for any of the following:</p> <ul style="list-style-type: none"> changing the type of crop grown, e.g. a move towards GM crops or organic farming (1) changing the method of farming, e.g. a move away from nomadic to sedentary (1) extreme activities, e.g. zip wire, paintballing (1) farm shop/cafe/tea room (1) family/petting farm (1) camping/caravanning (1) livery/cattery/kennels (1). <p>Accept any other appropriate response.</p>	(1)



Developing AO1 skills

- Factual knowledge tests.
- Revision notes/mind maps/lists.
- Blank page revision – students start with a blank page and write down what they know about a particular topic. Missing facts are then looked up.
- Students teaching each other – a good way to learn is to teach someone else!
- Vocabulary – ALWAYS use key terms that are listed on the specification. The more students use them, the more they become confident with using it.
- Make key vocabulary lists at start of topics and keep referring to them when teaching. NEVER assume that students know all vocabulary – ALWAYS reintroduce words when teaching each topic.
- Check knowledge before moving onto a new topic.



AO2



Assessment objective 2 (AO2)

- AO2 is about demonstrating geographical understanding of:
 - Concepts and how they are used in relation to places environments and processes.
 - The interrelationships between place, environments and processes.

Students need to go beyond demonstrating what they 'know' but to demonstrate they can explain ideas.

Typical AO2 Question – Paper 1

(d) Explain **one** cause of coastal flooding.

(3)

Question number	Answer	Mark
2(d)	<p>AO2 (3 marks)</p> <p>Award 1 mark for identification of a cause and 2 marks for development through further explanation, up to a maximum of 3 marks.</p> <ul style="list-style-type: none"> • There has been a sudden rise in sea level (1) caused by a storm surge/very strong winds (1), which push the water on an ocean's surface on top of more water (1). • Rising sea levels (1) due to climate change/isostatic rebound (1) will mean that more low-lying areas are vulnerable (1). • An area can flood if there is a tsunami (1) resulting from an earthquake/volcanic eruption/meteor impact (1), which causes a major displacement of water in the ocean and, consequentially, coastal flooding (1). • Some coastal settlements have developed on reclaimed land (1), which is characteristically low-lying and flat (1), so a small rise in sea level from a mild storm surge is enough to flood it and cause extensive damage (1). <p>Accept any other appropriate response.</p>	(3)

Activity 7: AO2

Look	Look at Question 3d.
Rank	Without reference to the published mark scheme, rank order samples A–D.
Use	Now, use the published mark scheme to mark samples A–D.

4-1: A

(d) Explain **one** physical factor that can make people more vulnerable to natural hazards.

(3)

living on a tectonic fault line or a plate margin will increase your vulnerability as you are more likely to experience ~~tectonic~~ tectonic plate movement leading to natural hazards

4-1: B

(d) Explain **one** physical factor that can make people more vulnerable to natural hazards.

(3)

Proximity - those closer to the hazard itself will feel both it and its effects more violently. For example, those closer to the epicentre of an earthquake will experience more violent shaking, and therefore have a greater extent of damage, injuries, and death.

4-1: C

(d) Explain **one** physical factor that can make people more vulnerable to natural hazards.

(3)

if they are near plate
boundary the are more
vulnerable due to the
movement of the plate

4-1: D

(d) Explain **one** physical factor that can make people more vulnerable to natural hazards.

(3)

~~During an earthquake, the depth of the focus makes~~
~~people~~ infrastructure and buildings makes people more
vulnerable because they ~~cannot~~ may collapse onto people
during a hazardous event i.e. a lava bomb may land on them
causing them to fall or they may ~~be~~ collapsed by the sheer
force of the ground shaking in earthquakes. is buildings



Developing AO2 skills

- Give students regular questions that require explanation.
- Encourage them to think about language they can use to develop their points. .
- Confidence is key to student performance.
- Give out short explanation exercises as quick starter activities.



A03



Assessment objective 3 (AO3)

AO3 Application of knowledge and understanding to interpret, analyse and evaluate geographical information and issues and to make judgements.

- AO3 is about application of knowledge and understanding to unfamiliar contexts.
- Will require the use of resources.
- May require higher cognitive demand – analysis, evaluation, discussion.
- Can be linked to geographical fieldwork.
- Can be ‘suggest’ questions as this implies an unfamiliar context.
- Often part of a mixed AO question, e.g AO2/AO3 (3 marks) AO2/AO3/AO4 (12 marks)
- May be challenging for less confident students.

A03 Questions

(c) (i) Describe how you used **one** piece of equipment to collect your primary data. (2)

Question number	Answer	Mark
4(c)(i)	<p>A03 (2 marks)</p> <p>Award 1 mark for initial point, and a further mark for explanation, up to a maximum of 2 marks.</p> <p>The equipment used will vary depending on the nature and context of the fieldwork, but it must be plausibly linked to the focus: economic activity and energy.</p> <ul style="list-style-type: none">• Mobile phone (1) to plot data on a map (1).• Questionnaire (1) to gather views from local people (1). <p>Accept any other appropriate response.</p>	(2)

A03 Questions: fieldwork

(d) Explain **one** way you tried to make sure your results were accurate.

(3)

.....

.....

.....

.....

.....

.....

Question number	Answer	Mark
4(d)	<p>A03 (3 marks)</p> <p>Award 1 mark for an initial point, and further 2 marks for explanation.</p> <ul style="list-style-type: none">• I took photographs as well as field sketches (1) to make sure I did not miss any details (1) this meant I could refer to these images when analysing the data (1).• I chose several sites around the area (1) to make sure that I collected data from a range of people (1) to try and get a representative sample of people (1). <p>Accept any other appropriate response.</p>	<p>(3)</p>

AO3 Question (combined with AO2)

(e) Study Figure 1b in the Resource Booklet.

Suggest **two** reasons this region may experience water shortages.

You **must** refer to the resource in your answer.

(4)

1

2

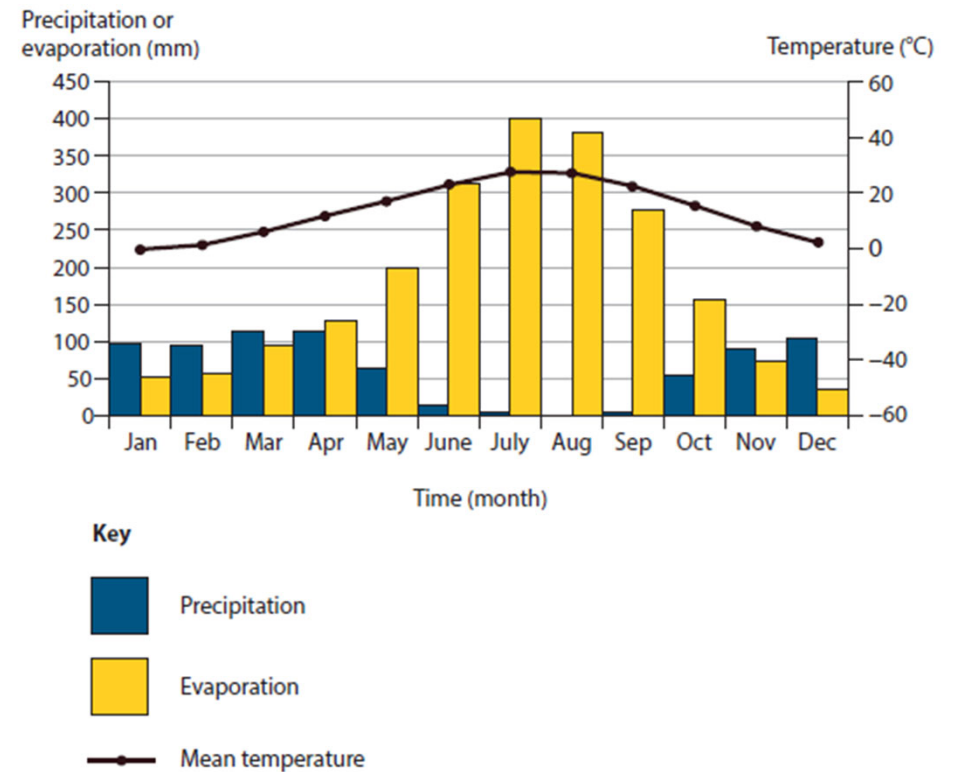


Figure 1b

Climate graph of mean precipitation, evaporation and temperature for Tigris basin, Türkiye

Mark scheme

Question number	Answer
1(e)	<p>AO2 (2 marks)/AO3 (2 marks)</p> <p>Award 1 mark (AO3) for the identification of a specific feature in climate and a further mark for explanation (AO2) up to a maximum of two marks each.</p> <ul style="list-style-type: none"> • June – August have very high levels of evaporation (1) meaning there will be less water in rivers for people to use (1). • There is no rainfall in August (1) but water demand increases as there will be lots of tourists (1). • Rainfall levels are very low all year (around 700 mm) (1) which means stores do not get refilled regularly (1). • The temperature is very high in summer (1) which will increase demand for drinking water (1). • There is a deficit between evaporation and rainfall overall (1) which reduces supply as more is lost than gained each year (1). <p>Do not credit high temperature all year.</p> <p>Accept any other appropriate response.</p>



A04



Assessment Objective 4

“Select, adapt and use a variety of skills and techniques to investigate questions and issues and communicate findings.”

- This requires candidates to demonstrate their skills.
- Will require the use of resources.
- May require higher cognitive demand for the extended response questions– analysis, evaluation, discussion.
- Can be linked to geographical fieldwork.
- Often part of a mixed AO question, e.g AO3/AO4 (8 marks) AO2/AO3/AO4 (12 marks)
- Some questions may be challenging for less confident students.

AO4: Fieldwork

(d) (i) Study Figure 4b in the Resource Booklet.

Plot the data for sites 1 and 3, from Figure 4b (shown in the Resource Booklet), on Figure 4c (below).

(2)

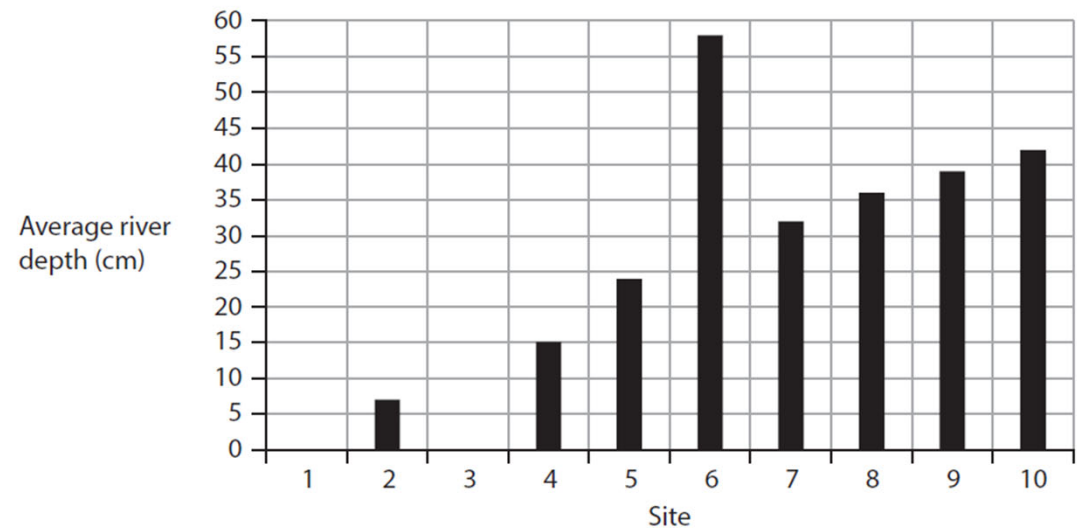


Figure 4c

Average river depth at each site

(ii) Identify at which site there is an anomaly.

(1)

A04 Question (with A03)

(g) Study Figure 2c in the Resource Booklet.

Analyse the possible reasons why the populations of some countries are less at risk from coastal flooding than others.

You **must** refer to the resource in your answer.

(8)

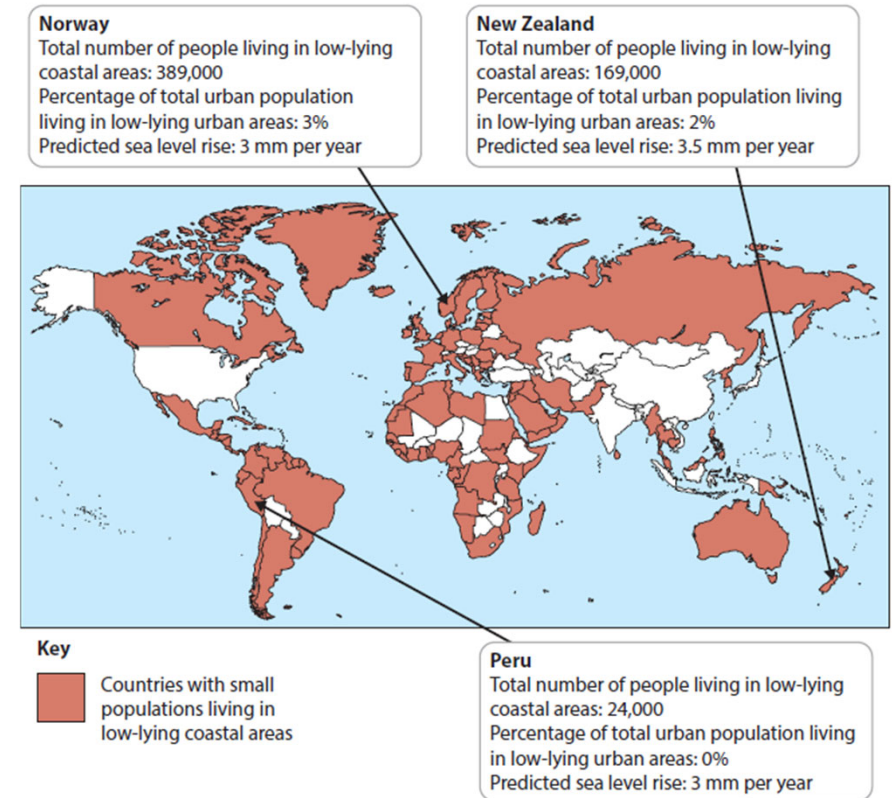


Figure 2c

Countries with a small population living in low-lying coastal areas and selected data

AO4 Question (with AO2 and AO3)

(f) Discuss the view:

"Deforestation is the greatest threat to fragile environments."

Use Figures 7b and 7c from the Resource Booklet, and your own knowledge and understanding to support your answer.

You **must** refer to the resources in your answer.

(12)

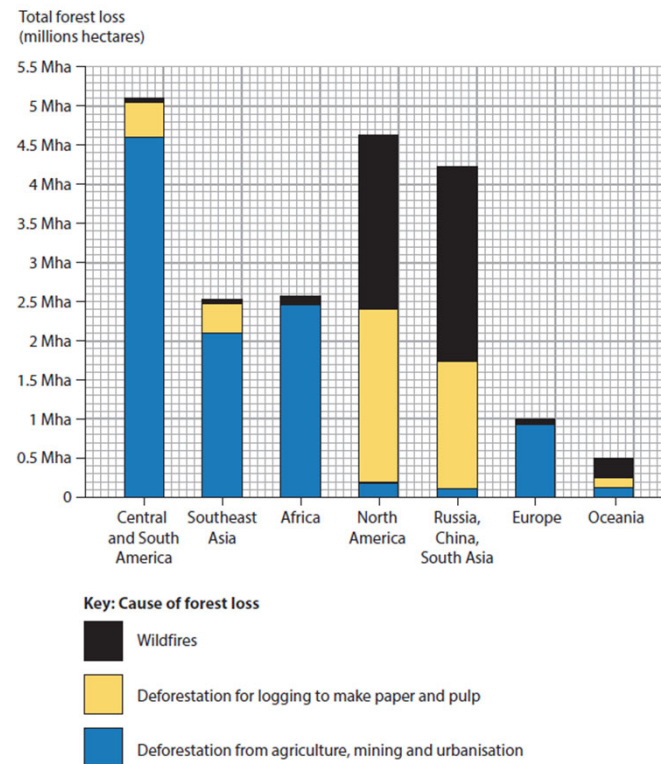


Figure 7b
Information on global forest loss, 2001–2015

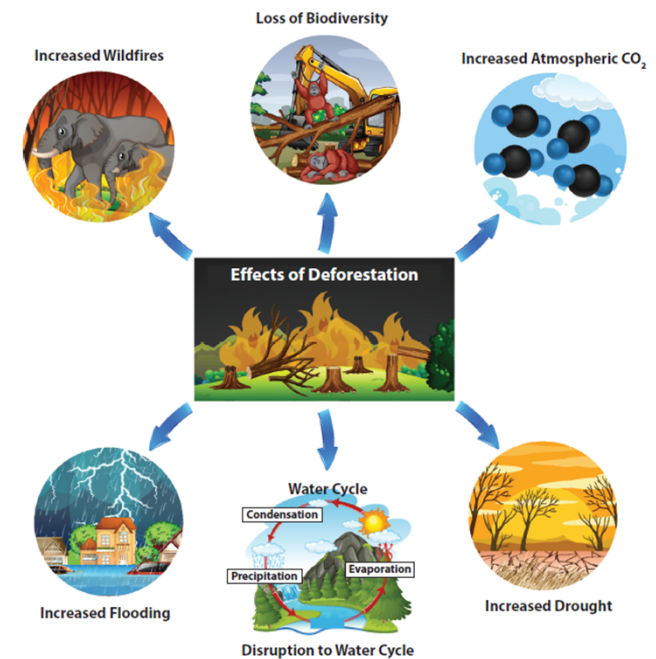


Figure 7c
Selected impacts of deforestation

Question number	Indicative content
7 (f)	<p>A02 (4 marks), A03 (4 marks), A04 (4 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>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:</p> <p>A02</p> <ul style="list-style-type: none"> Deforestation has a range of negative effects on fragile environments including loss of biodiversity, contribution to climate change, increased soil erosion. Rising global temperatures have the potential to have wide ranging impacts on fragile ecosystems. Rising global temperatures are likely to increase risk of desertification for areas of the globe, introducing desertification into some areas, and making it worse in others. Increased desertification has the potential to impact livelihoods across the globe in terms of the availability of land for agriculture. <p>A03</p> <ul style="list-style-type: none"> Changes in temperatures are likely to have more wide-ranging impacts on the globe than just deforestation. Changing rainfall patterns will not only affect forests processes, but a wider range of areas with many facing increased rainfall and hazards associated with this. Global temperatures have the potential to contribute to sea level rise which many would argue poses a greater threat to fragile environments. The variation in patterns of surface water will affect humidity and therefore rainfall patterns and as a consequence risk of desertification. <p>A04</p> <ul style="list-style-type: none"> Figure 7b shows there is variation in the causes of deforestation between tropical and temperate regions. Figure 7b shows how agriculture contributes to deforestation in all global regions, although to different extents. Figure 7b shows how wildfires have contributed to over half of deforestation in North America and Russia, China and South Asia. Figure 7c shows potential effects of deforestation: loss of biodiversity; increased atmospheric CO₂; increased drought; disruptions to water cycle; increased flooding; increased wildfires. Figure 7c demonstrates how deforestation has immediate and long terms impacts. Figure 7c demonstrates how deforestation can have effects beyond the forest ecosystem.

Question number	Indicative content	
Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–4	<ul style="list-style-type: none"> Demonstrates isolated elements of understanding of concepts and the interrelationship between places, environments and processes. (A02) Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (A03) Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (A04)
Level 2	5–8	<ul style="list-style-type: none"> Demonstrates elements of understanding of concepts and the interrelationship between places, environments and processes. (A02) Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (A03) Uses geographical skills to obtain accurate information that supports some aspects of the argument. (A04)
Level 3	9–12	<ul style="list-style-type: none"> Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (A02) Applies understanding to deconstruct information and provides logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (A03) Uses geographical skills to obtain accurate information that supports all aspects of the argument. (A04)

Activity 8: Write a mark scheme for an extended response question that combines AOs

(f) Discuss the view:

“Improvements in human welfare are mainly driven by economic development.”

Use Figures 9b and 9c from the Resource Booklet, and your own knowledge and understanding to support your answer.

You **must** refer to the resources in your answer.

(12)

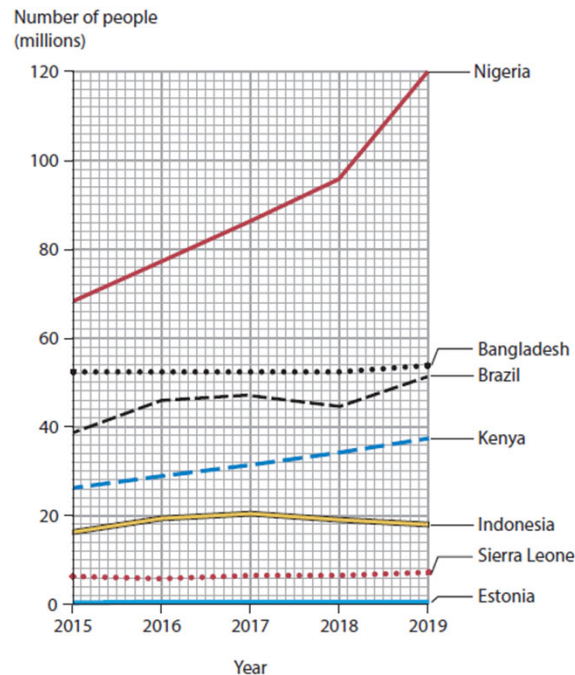


Figure 9b

Number of people affected by food insecurity for selected countries, 2015–2019

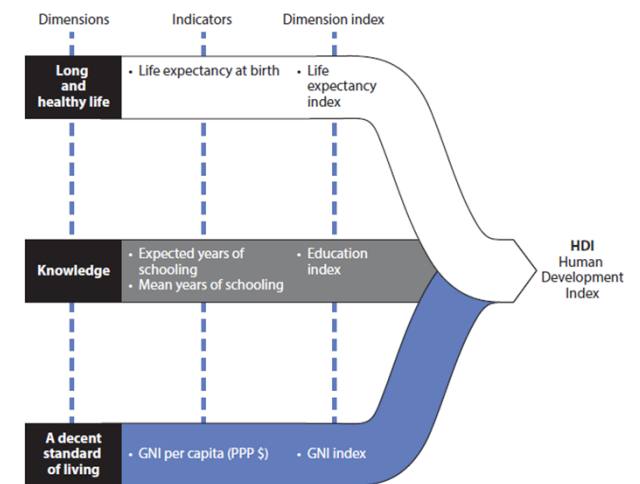


Figure 9c

The Human Development Index (HDI)

Note: GNI is gross national income

Question number	Indicative content
9(f)	<p>A02 (4 marks), A03 (4 marks), A04 (4 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>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:</p> <p>A02</p> <ul style="list-style-type: none"> Human welfare of a country can be affected by a range of factors economic, social, technological, and cultural. Growth in GDP and other economic indicators are often associated with improved human welfare. Improvements in human welfare are often associated with improvements in life expectancy, mortality rates. <p>A03</p> <ul style="list-style-type: none"> Development is often understood through economic terms through GDP etc. which does not necessarily reflect overall development of a country in terms of quality of life. Social measures of development could include inequality which may more accurately portray the overall development of a country rather than an increase in wealth, which could have been fuelled by discovery of natural resources, or growth in a particular industry. Patterns of development are often discussed at the national level, whereas there are significant variations within social and economic experiences within countries. Human welfare issues are complex and while improvements in economic terms at the national scale may suggest development, the pattern may be uneven. Improvements to housing, education and healthcare are key social issues that lead to increased human welfare, but they all have an economic cost. <p>A04</p> <ul style="list-style-type: none"> Figure 9b shows variations in the number of people who experience food insecurity in 2015-2019. Figure 9b shows how many of the selected countries in Africa have a consistent level of people who experienced food insecurity during 2015-2019. Figure 9b shows how Nigeria has had a rising number of people who experience food insecurity in 2015-2019. Figure 9c shows how the human development index has three key dimensions.

Question number	Indicative content
	<ul style="list-style-type: none"> Figure 9c shows how the dimension of living a long and healthy life is measured through life expectancy. Figure 9c shows how the knowledge dimension is measured through expected years of schooling. Figure 9c shows how the decent standard of living is measured through GNI per capita.
Level	Mark Descriptor



Developing AO4 skills

- Provide lots of opportunities for candidates to use different resources to answer questions.
- Don't assume that candidates have the maths skills from maths lessons!
- Past papers can be helpful for, but resources in textbooks, websites, and other resources could be used to answer a variety of questions.
- Make regular use of data to support learning activities.
- Integrate questioning into classroom activities that requires candidates to make links between geographical concepts and demonstrate their skills.
- Give candidates plenty of opportunities to make judgements about issues based on data and resources. Practice developing an argument and providing support from knowledge, understanding and resources.

Question Styles



Question Styles

- Multiple choice
- Short answer – one, two, three or four marks.
- Extended response – can be six, eight or 12 marks. May be assess, analyse, evaluate, discuss.
- Skills questions – calculations/graph plotting

Multiple Choice Questions

(a) Identify the best definition of the term evaporation.

(1)

- ☐ A any form of water that falls from the sky
- ☐ B the emission of water vapour from leaves
- ☐ C water changing from a gas to a liquid
- ☐ D water changing from a liquid to a gas

(ii) Identify the **two** forms of non-renewable energy.

(2)

<input type="checkbox"/>	A Coal
<input type="checkbox"/>	B Hydroelectric
<input type="checkbox"/>	C Geothermal
<input type="checkbox"/>	D Oil
<input type="checkbox"/>	E Solar
<input type="checkbox"/>	F Wind

(d) Study Figure 1b below. It shows employment structures for selected countries in 1991 and 2018.

(i) Label the box with an X to show which pie chart displays the largest percentage for secondary sector employment.

(1)

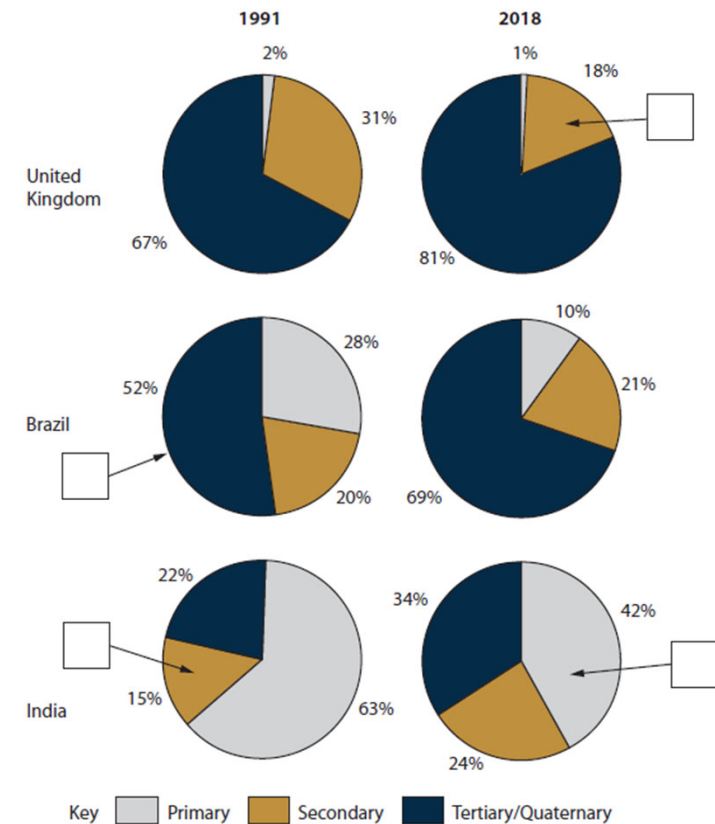


Figure 1b

Employment structures for selected countries in 1991 and 2018

Short answer questions -1 or 2 marks

(d) State **one** reason for a growth in tertiary sector employment in many countries.

(1)

(b) Study Figure 2a in the Resource Booklet.

Describe the characteristics of **one** of the world's biomes shown.

(2)

Named biome

Short answer questions -3 or 4 marks

(d) Explain **one** way agriculture can affect water quality.

(3)

(g) Study Figure 1b in the Resource Booklet.

Suggest **one** reason for the changes in manufacturing employment shown in Figure 1b.

(3)

(e) For a named developing or emerging country explain **two** environmental challenges facing rural areas.

(4)

Named developing or emerging country _____

1 _____

2 _____

Extended response questions

(g) Study Figure 3c in the Resource Booklet.

Analyse the impacts of the volcanic eruption on the environment.

You **must** refer to the resource in your answer.

(8)

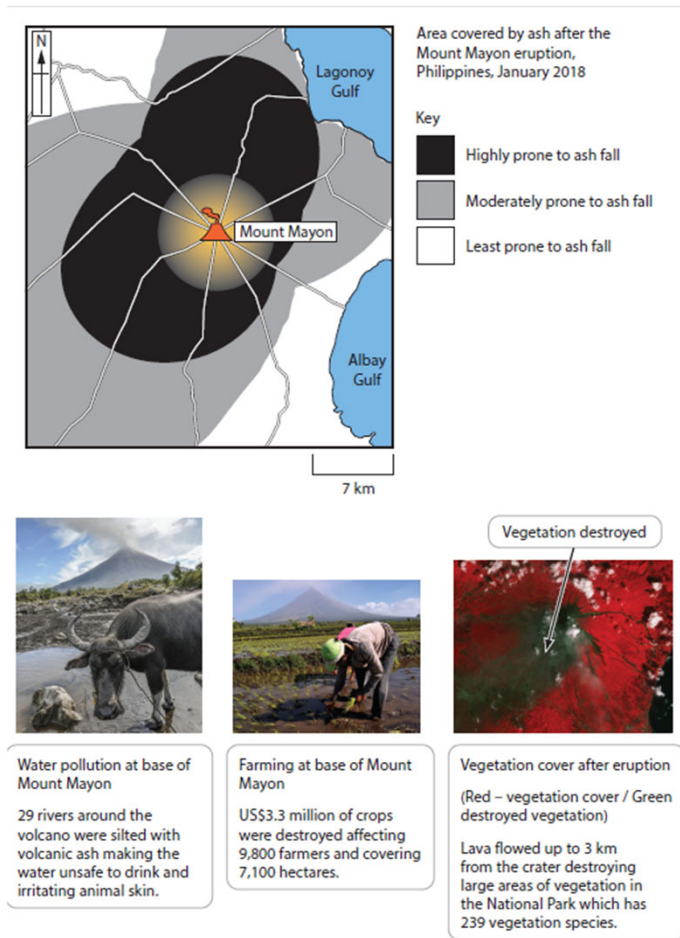


Figure 3c
Selected impacts from Mount Mayon eruption, Philippines, January 2018

How can we improve student responses?



What strategies do you use in your centres to ensure that students are well prepared for questions with different AOs?



How do we check the students' knowledge and understanding of each topic?



What strategies work particularly well?



How is it best to check on learning?



How can we ensure students' can communicate their ideas effectively?

How can we improve student responses?

Within the
classroom

Teaching
strategies

Use the
specification

Use past
papers

Use textbook

Use tests

Use the
published
mark schemes

Use examiner
reports

Quantitative skills



Quantitative skills

- The development and use of relevant quantitative skills is important, as some marks in the paper will focus on these
- A list of quantitative skills which should be developed appears in the Appendix 4 of the specification
- These skills will be tested in exam papers within the context of different geographical issues.
- Assessment of mathematical skills will account for approximately 10% of marks in Geography

Appendix 4:

Quantitative skills

Quantitative skills

Cartographic skills

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

Graphical skills

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

Numerical skills

- Demonstrate an understanding of number, area and scale, and the quantitative relationships between units.
- Design fieldwork data collection sheets and collect data with an understanding of accuracy, sample size and procedures, control groups and reliability.
- Understand and correctly use proportion and ratio, magnitude and frequency, e.g. 1 : 200 flood, and logarithmic scales such as the Richter scale, in orders of magnitude.
- Draw informed conclusions from numerical data.

Statistical skills

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

Quantitative Skills Question

- (b) Study Figure 4a in the Resource Booklet. It shows some data about the average channel depth at the 10 sites where data was collected.

Calculate the range in river depth.

You **must** show all your working in the space below.

(2)

..... cn

Site	Average river channel depth (cm)
1	12
2	5
3	14
4	23
5	41
6	36
7	47
8	51
9	50
10	63

Figure 4a

Average river depth data for each site

Quantitative Skills Question

Site	River width (m)	Average river velocity (m/s)
1	1	0.2
2	2	0.3
3	4	0.4
4	6	0.6
5	7	0.7
6	9	0.8
7	11	0.8
8	12	1.0
9	14	1.1
10	17	1.2

Figure 4b

River width and average velocity data for each site

(c) (i) Study Figure 4b in the Resource Booklet.

Plot the data for sites 1 and 3, from Figure 4b (shown in the Resource Booklet), on Figure 4c (below).

(2)

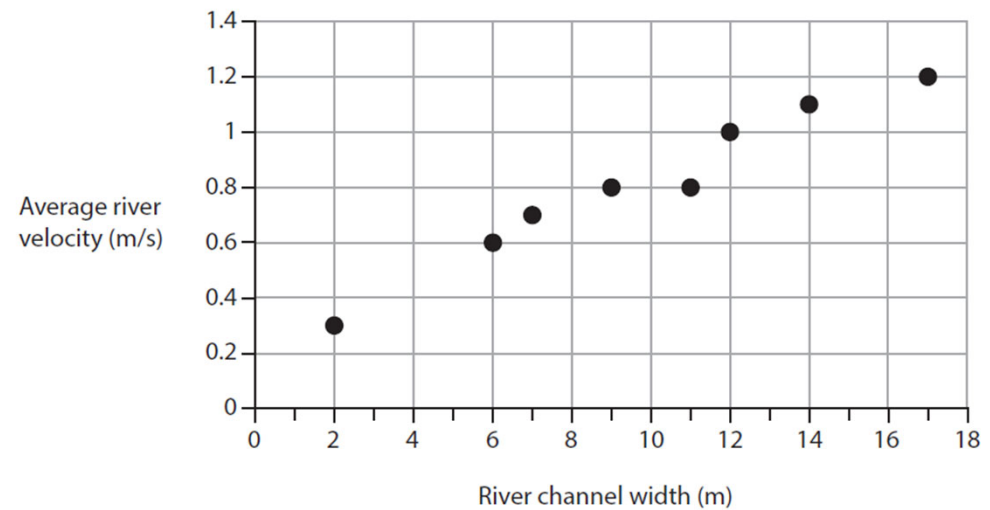


Figure 4c

Relationship between river width and average velocity

(ii) Draw a line of best fit on Figure 4c.

(1)

Quantitative Question

- (b) Study Figure 4b in the Resource Booklet. It shows results from a questionnaire carried out as part of a student's geographical enquiry.
- (i) Plot the data for the questionnaire for **Question 2** (Figure 4b in the Resource Booklet) to complete Figure 4c below.

(2)

Some data has been plotted for you as an example.

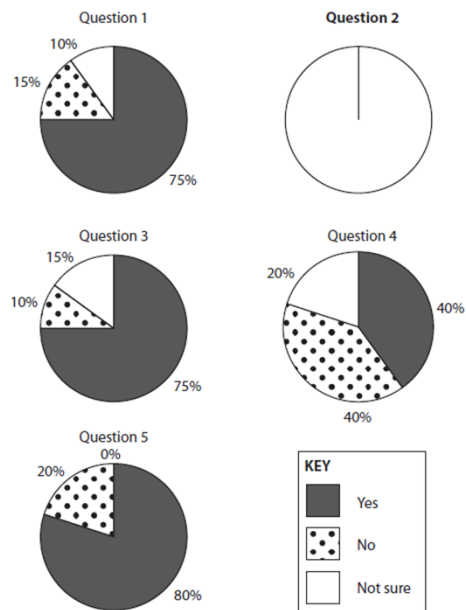


Figure 4c

Results from a questionnaire presented in pie charts

	Yes (%)	No (%)	Not sure (%)
Question 1: Did you think this area needs to be improved?	75	15	10
Question 2: Do you think the developments have improved the area?	50	40	10
Question 3: Do you think further improvements need to be made?	75	10	15
Question 4: Do you think local government should be responsible for leading the development of this area?	40	40	20
Question 5: Are you local to this area?	80	20	0

Figure 4b

Extract from a student's questionnaire



Activity 9: Quantitative skills

- Reflecting on your experience with students:
- Do you specifically highlight to candidates where quantitative skills are included in lessons?
- How could you ensure candidates are confident in answer questions that include these quantitative skills?
- Are there any that you think might require further work to support candidates as they are less familiar?



Suggestions

- Regularly integrate quantitative skills into teaching activities.
- Highlight to candidates where skills are being developed and used.
- Include opportunities to test understanding of how to use different skills.
- Create a checklist of quantitative skills.
- Review the Principal Examiner reports which highlight where candidates have struggled in previous series.
- Use past papers.

Taxonomy (Command Words)

Command words – what they are and why they are important



Every question should have a command word.



It is an instruction to candidates, telling them what we want them to write.



It is critical that candidates know what each command word means so that they can answer the question effectively.



Many candidates do not fully understand what each command word means – ‘describe’ and ‘explain’ are often confused with each other.



All our qualifications in International GCSE sciences now use a common taxonomy for command words.



These can be found in Appendix 5 at the back of the specification.

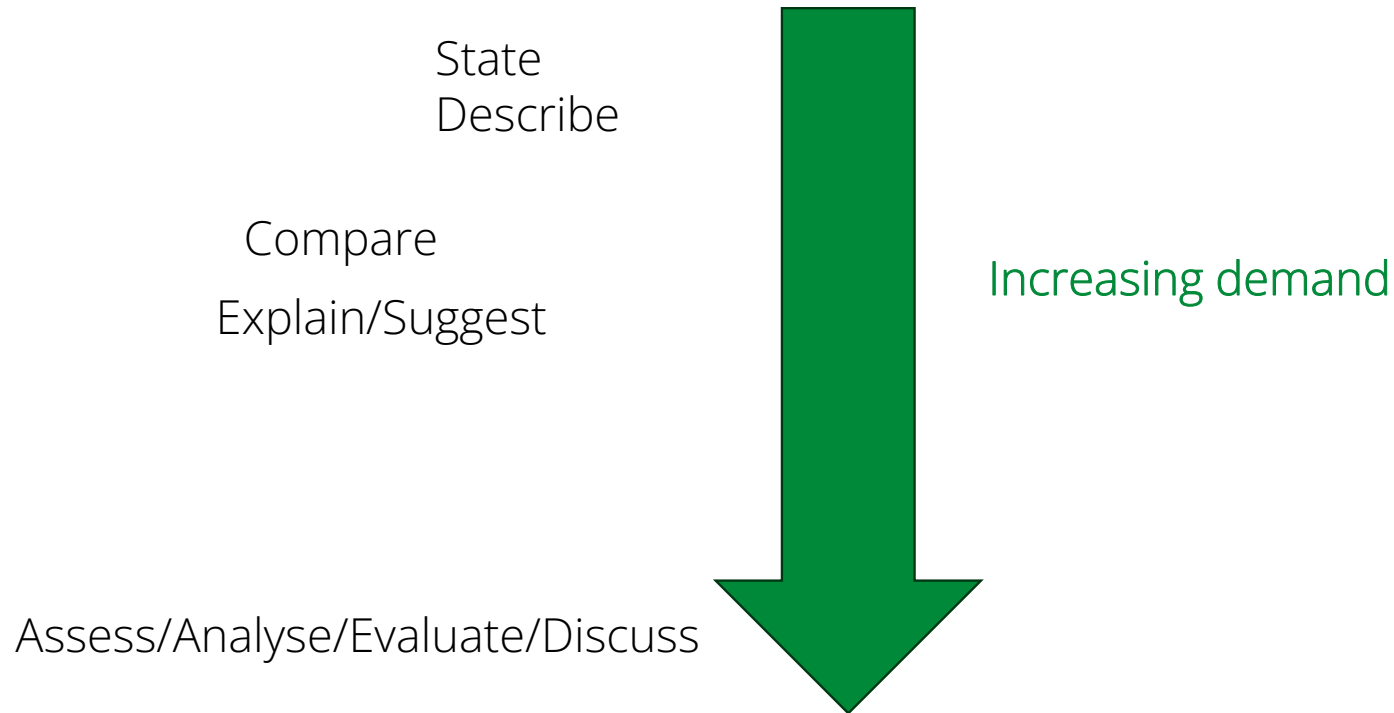


Students can expect a range of command words across the demand range of the exam paper.

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

Cognitive demand of command words

Some command words have different cognitive demands:



Command words - Explain

(f) Explain **one** advantage and **one** disadvantage of using non-renewable energy sources.

(4)

Advantage

Disadvantage

Command word: Suggest

Apply understanding to provide a reasoned explanation of how or why something may occur. A suggested explanation requires a justification/exemplification of a point.

(c) Study Figure 2a in the Resource Booklet.

Suggest **two** reasons hard engineering is suitable for this stretch of coastline.

(4)

1

2

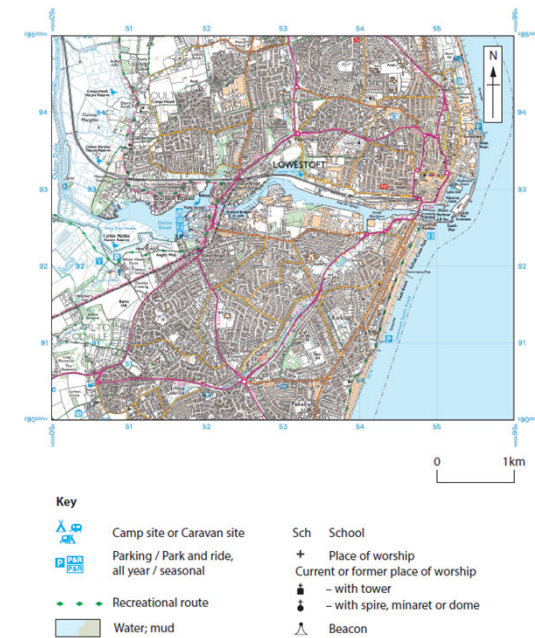


Figure 2a

OS map extract showing a coastal landscape

Mark scheme

Question number	Answer	Mark
2(c)	<p>AO2 (2 marks)/AO3 (2 marks)</p> <p>Award 1 mark (AO3) for the identification of a reason based on evidence from resources and a further mark for explanation (AO2) up to a maximum of two marks each.</p> <ul style="list-style-type: none"> • There is a large urban area which has a high economic value (1) which would cost too much in compensation to not protect (1). • Claremont Pier suggests a tourist industry (1) this creates jobs for people living in the area (1). • In square 5594 there is a camping/caravan site (1) supporting the local economy (1). • There is a river mouth which is often used for trade (1) which needs to be kept clear to ensure boats can access (1). • A sea wall may be needed near Ness Point (1) to protect the buildings from flooding (1). • The beach is much narrower in 5594 (1) offering little coastal protection to the buildings without hard engineering (1). • There is a school in 5491 (1) which will negatively affect pupils' education if erosion is allowed to take place (1). <p>Accept any other appropriate response.</p>	(4)

Command word : Analyse

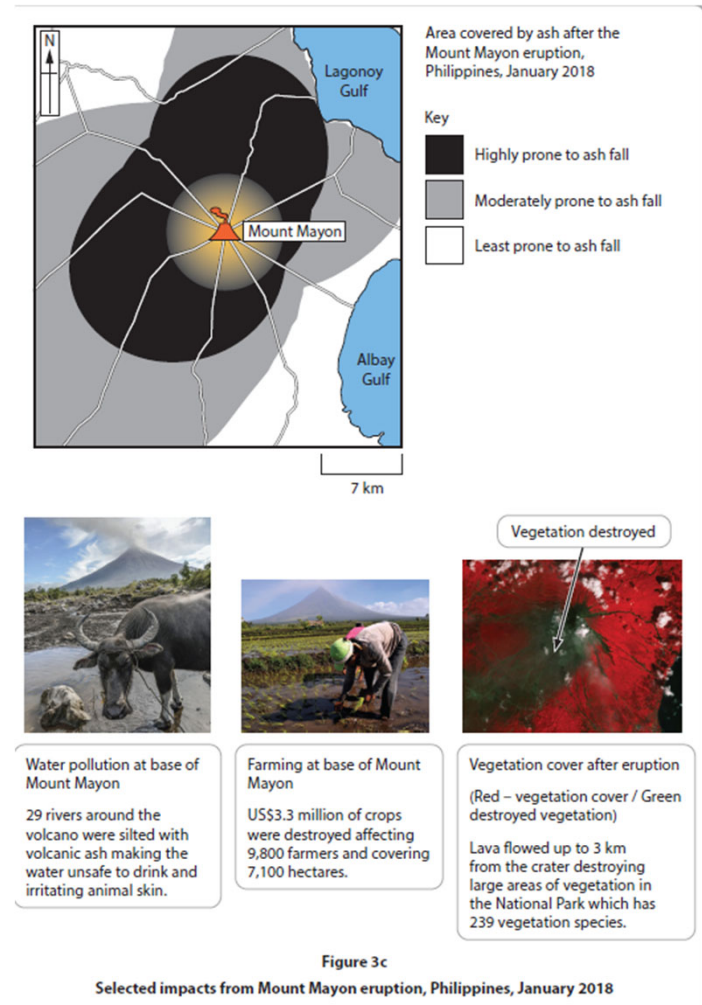
"Investigate an issue by breaking it down into individual components and making logical, evidence-based connections about the causes and effects or interrelationships between the components."

(g) Study Figure 3c in the Resource Booklet.

Analyse the impacts of the volcanic eruption on the environment.

You **must** refer to the resource in your answer.

(8)



Activity 9: Analyse

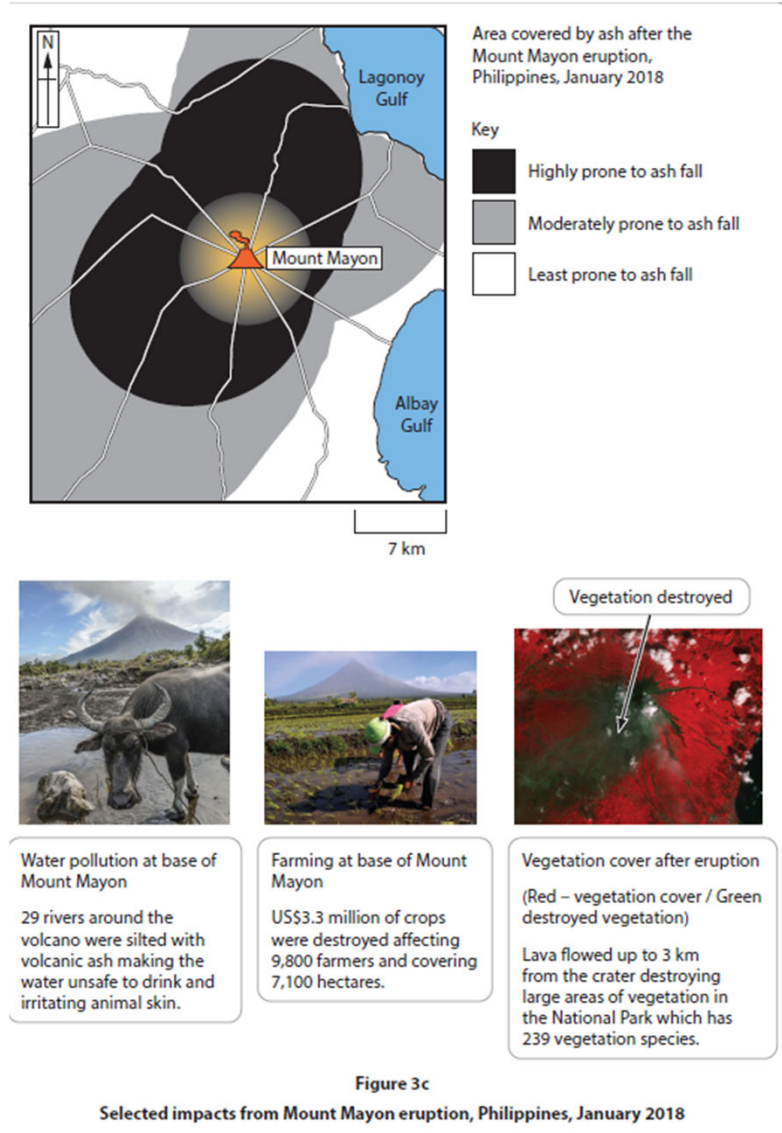
- Try to put together a list of points that you would use to form your analysis.
- How would your answer address the 'analyse' command word in the question?
- Then read the example response. How different was this to your ideas?

(g) Study Figure 3c in the Resource Booklet.

Analyse the impacts of the volcanic eruption on the environment.

You **must** refer to the resource in your answer.

(8)



(g) Study Figure 3c in the Resource Booklet.

Analyse the impacts of the volcanic eruption on the environment

You **must** refer to the resource in your answer.

(8)

In Figure 3c, the potential impacts of a volcanic eruption on the environment are shown through the graph and descriptions. Some primary impacts such as pyroclastic flows and ash clouds can have significant long term impacts where ash settles and suffocates plants ~~of~~ ~~for~~ pyroclastic flows ~~high temperatures~~ ~~and~~ lava flows high temperatures damage crops. This is evident through the descriptions stating \$3.3 million crops were destroyed and lava destroyed large areas of vegetation. However, although short term impacts can result in loss of biodiversity and damage, in the long term ash deposited can increase the fertility of the land and therefore result in regrowth or agricultural growth. This is why the areas in black of the ash covering will be highly favourable in the long term for vegetation growth and agriculture. Another example of this is after the E-TS eruptions in 2010 where many bought agricultural land near the volcano in the years following the explosion. Volcanic eruptions also have a significant

effect on water pollution, which became where 24 rivers were silted with ash. This has potentially dangerous effects as ash can contain toxic elements which could potentially damage the ~~be~~ taken into ~~water~~ organisms and animals. An additional impact of eruptions can also be caused by lahars, a

(Total for Question 3 = 25 marks)

secondary impact due to snowmelt which causes a hot mudflow of debris. This can affect the environment due to ~~potentially~~ ~~at best~~ washing away all vegetation and soil. Overall, although the short term impacts of volcanic eruptions may ~~not~~ initially cause destruction of the environment, in the long term this can cause more fertile land and vegetation growth.

TOTAL FOR SECTION A = 50 MARKS

Mark scheme

Question number	Answer	Mark
3(g)	<p>AO3 (4 mark)/AO4 (4 mark)</p> <p>Marking instructions</p> <p>Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the level-based mark scheme below.</p> <p>Indicative content guidance</p> <p>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.</p> <p>This question is about analysing the significance of different types of impacts volcanic eruptions can have on the environment. Candidates will need to be able to identify the different types of impacts and consider the most severe impact for the environment.</p> <p>AO3</p> <ul style="list-style-type: none"> • Shorter term impacts often last for hours, days, weeks. • Longer term impacts often last for months, years, decades. • A range of volcanic hazards can cause damage to the environment. Lava flows, lahars, pyroclastic flows can destroy vegetation and pollute rivers, lakes and waterways. • Ash and gas can make the air dangerous to breathe leading to the death of animals. • Animals can also ingest ash that has landed on vegetation they eat and water they drink. • In large eruptions ash can cause a drop in temperature as it blocks out solar radiation. This also increases the amount of sulfate aerosols in the atmosphere which absorb solar radiation radiated from the Earth's surface increasing the cooling effect. • After the initial destruction the environment is able to rebalance and the ash is a good fertiliser for the soil. <p>AO4</p> <ul style="list-style-type: none"> • Figure 3c shows a large area of vegetation was lost directly around the Mount Mayon. • Figure 3c shows there is a large area of green on the south flank of the volcano. • Figure 3c shows 29 rivers were silted up with ash reducing the water quality. • Figure 3c shows animals are impacted as a result of polluted rivers/swamps. • Figure 3c shows ash covers everything for large areas after the eruption. • Figure 3c shows 7,100 hectares of agricultural land was destroyed. • Figure 3c shows the area highly prone to ashfall was over 7km in width. • Figure 3c shows the areas more highly prone to ashfall 	(8)

Question number	Answer	
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none"> • Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4–6	<ul style="list-style-type: none"> • Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	7–8	<ul style="list-style-type: none"> • Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Command word: Assess

“Use evidence to determine the relative significance of something. Give consideration to all factors and identify which are the most Important”.

(f) Study Figure 8b in the Resource Booklet.

Assess the role of TNCs in globalisation.

Refer to the resource in your answer.

(6)

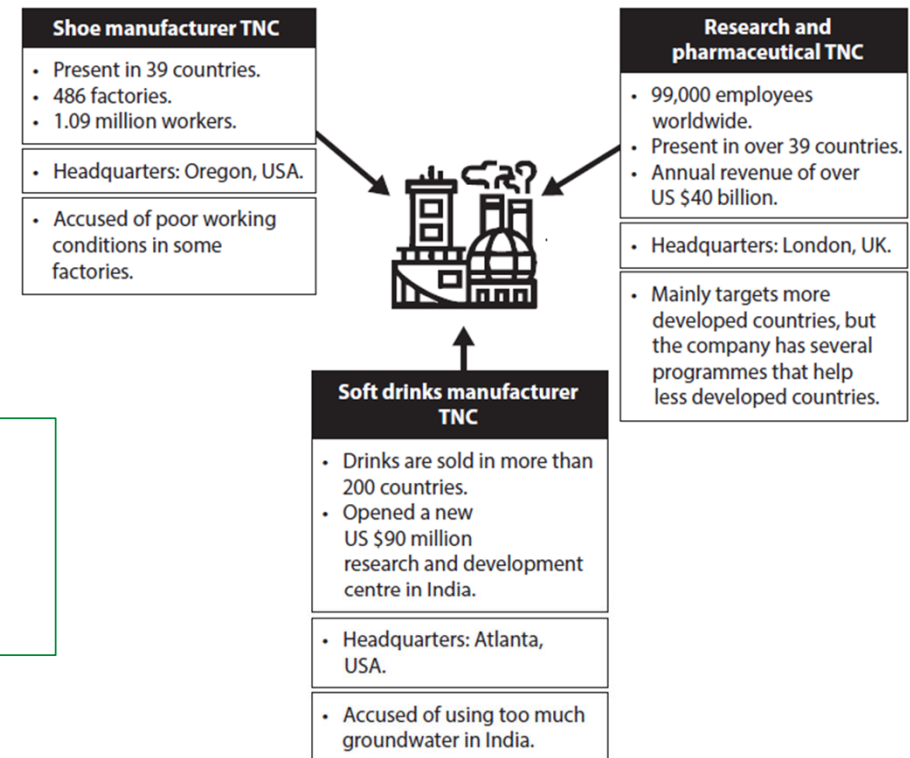


Figure 8b

Information about three transnational corporations (TNCs)

Question number	Indicative content
8(f)	<p>A03 (3 marks)/A04 (3 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>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:</p> <p>A03</p> <ul style="list-style-type: none"> Transnational corporations (TNCs) are present in multiple countries so facilitate communication, movement of goods, people and revenue between countries. TNCs can be involved in the spread of culture for example McDonalds is one of the largest fast-food <u>chain</u> TNCs with over 34,000 restaurants in 119 countries and in doing so has spread fast food culture across the globe. The presence of TNCs in a host country can attract additional inward investment from other TNCs so can facilitate further international links driving globalisation. Some TNCs locate parts of their company (e.g. manufacturing) in developing countries where wages are lower. This can encourage the movement of manufacturing away from developed countries into a greater range of countries fuelling globalisation through the expansion of supply chains. Globalisation is also fostered through economic development, advances in technology and transport but ultimately these are factors that affect the operation of TNCs too. <p>A04</p> <ul style="list-style-type: none"> Figure 8b shows how some TNCs have a large global footprint in terms of the number of countries they are present in. Figure 8b shows how TNCs have the potential to impact a large number of people through employment, and the sale of goods and services in different countries. Figure 8b shows how the headquarters for TNCs are often in developed countries (USA and UK in Figure 8c). Figure 8b indicates that there are negative impacts of TNC activity and that the overall benefits may not be global.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none"> Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4–6	<ul style="list-style-type: none"> Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)

Command: Assess

(e) Study Figure 9c in the Resource Booklet.

Assess the factors that contribute to improvements in human welfare.

You **must** refer to the resource in your answer.

(6)







	Education
	Food security
	Income
	Employment
	Access to safe drinking water
	Corruption

Figure 9c

Factors affecting human welfare

Question number	Indicative content
9(e)	<p>A03 (3 marks)/AO4 (3 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>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:</p> <p>A03</p> <ul style="list-style-type: none"> Human welfare has many different aspects. It can be defined as a general condition of a population or society, but it is more difficult to define than this. It is essentially a consideration of the quality of life for people in a society. There are different physical (e.g. diet, housing), social (e.g. education), economic (e.g. income and employment) and psychological (e.g. health and happiness) aspects to human welfare.

		<ul style="list-style-type: none"> The factors that affect human welfare are often interrelated, for example availability of a secure reliable job will affect someone's ability to have a stable income and therefore ability to buy nutritious food. It is difficult to measure human welfare overall, but considering indicators which relates to some of the factors above may indicate aspects of human welfare. <p>A04</p> <ul style="list-style-type: none"> Figure 9c shows there 6 potential factors that can affect human welfare. Figure 9c shows how human welfare can be affected by social, economic and environmental factors. Figure 9c shows how there could be many routes to improving human welfare.
Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	<ul style="list-style-type: none"> Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (A03) Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (A04)
Level 2	4–6	<ul style="list-style-type: none"> Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (A03) Uses geographical skills to obtain accurate information that supports some aspects of the argument. (A04)

Activity 10

(e) Study Figure 9c in the Resource Booklet.

Assess the factors that contribute to improvements in human welfare.

You **must** refer to the resource in your answer.

(6)

Figure 9c shows that education and employment affect human welfare. This is because as more people have access to education, literacy rates increase but also the supply of skilled labour also increase, which in turn increases the number of people employed. As more people are ~~also~~ employed, they have more disposable income meaning that more people pay taxes. The government can then use funds from taxes to reinvest into improving healthcare, education and infrastructure. Given that Figure 9c shows that income is also a factor.

Moreover, Figure 9c shows that Access to safe drinking water ^{is a factor} affecting human welfare. This is because if there is a lack of it so people will be more susceptible to diseases like Cholera which would then put a strain on hospitals and doctors. Furthermore, instead of the government investing into education and infrastructure they would have to prioritize investing it into healthcare. As a result, slowing down development.

Command word: Evaluate

"Measure the value or success of something and ultimately, substantiated judgement/conclusion. Review information and bring it together to form a conclusion, drawing on evidence strengths, weaknesses, alternatives and relevant data"

- (e) Study Figure 5a and Figure 5b in the Resource Booklet. They show some information about data presentation from a student's enquiry.

The aim of the student's enquiry was to investigate changes in coastal features. The student made field sketches of the data collection sites, and collected data on beach profiles and sediment size.

Evaluate the effectiveness of the data presentation techniques used by the student.

(8)

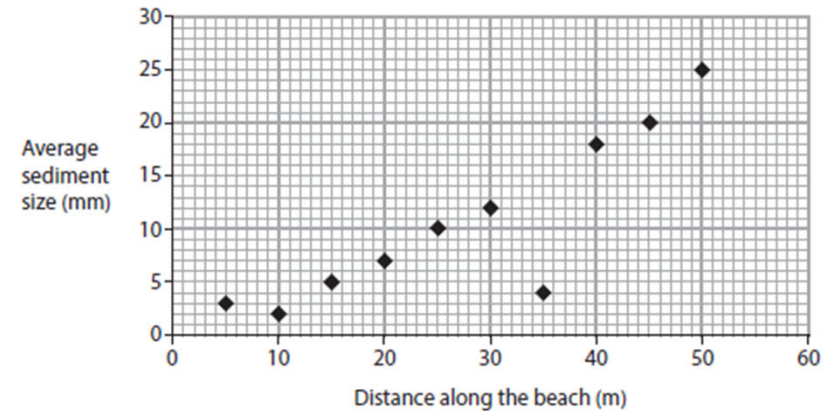


Figure 5a

Extract from student's data presentation

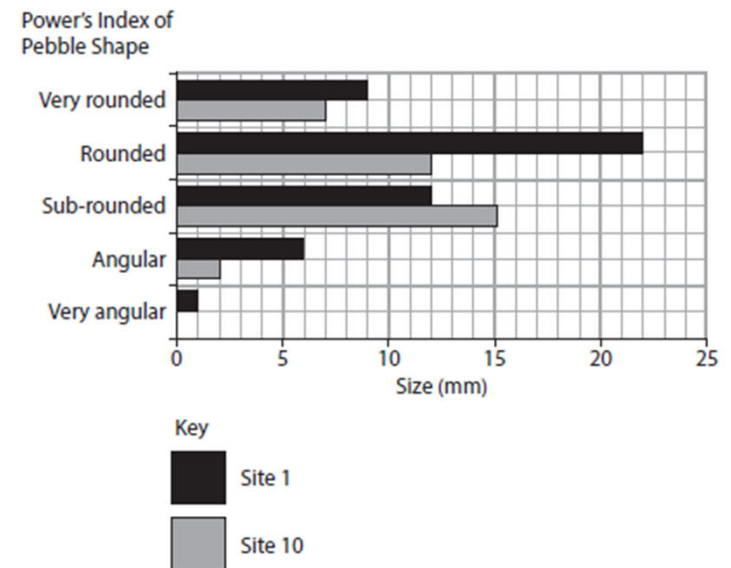


Figure 5b

Extract from student's data presentation

Question number	Indicative content
9(e)	<p style="text-align: center;">AO3 (3 marks)/AO4 (3 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>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:</p> <p>AO3</p> <ul style="list-style-type: none"> • Human welfare has many different aspects. It can be defined as a general condition of a population or society, but it is more difficult to define than this. It is essentially a consideration of the quality of life for people in a society. • There are different physical (e.g. diet, housing), social (e.g. education), economic (e.g. income and employment) and psychological (e.g. health and happiness) aspects to human welfare.

(e) You have studied river processes as part of your own geographical enquiry.

Evaluate the accuracy and reliability of your data collection techniques.

(8)

Geographical enquiry title

How does the characteristics of river flow changes as it goes down stream.

We used dog biscuit to measure the velocity of the river at different sites. The advantages of using this method is that it is easy to do and it is biodegradable, so multiple set of data can be taken for the results which makes it more reliable. However, it is not very accurate as the dog biscuit could be caught by catchment of vegetation or human mistakes in take the reading and stopping the stop watch (used for measuring the time taken for dog biscuit to travel a ~~10~~ 10 m). So a better alternative is to use a hydroprop to measure the velocity which is more accurate as it eliminates the human risks of human errors.

We also used a water ruler to measure the depth of the river. This method is quick and easy, however, which enable us to record a large set of data and to take repeats to take an average excluding anomalies. However, it is not very accurate as it might be stuck into the mud or not the river bed, leading to anomalies and

there is a risk of human error when taking the reading of the water ruler. So an improvement would be to use a metal chain to put on the river bed, and measure the depth of metal chain to the surface, then add on the diameter of the chain, this would make our result more accurate.

Overall, our method is reliable but not accurate due to the equipment used which has a high risk of human errors. (Total for Question 4 = 20 marks)

Command word: Discuss

“Explore the strengths and weaknesses of different sides of an issue/question. Investigate the issue by reasoning or argument.”

(g) Discuss the view:

“Climate change is the greatest threat to fragile environments.”

Use Figures 7b and 7c from the Resource Booklet, and your own knowledge and understanding to support your answer.

You **must** refer to the resources in your answer.

(12)







	Food insecurity
	Increased flooding
	Increased risk of fires
	Changes in growing seasons
	Migration
	Heat stress

Figure 7c

Potential impacts of climate change

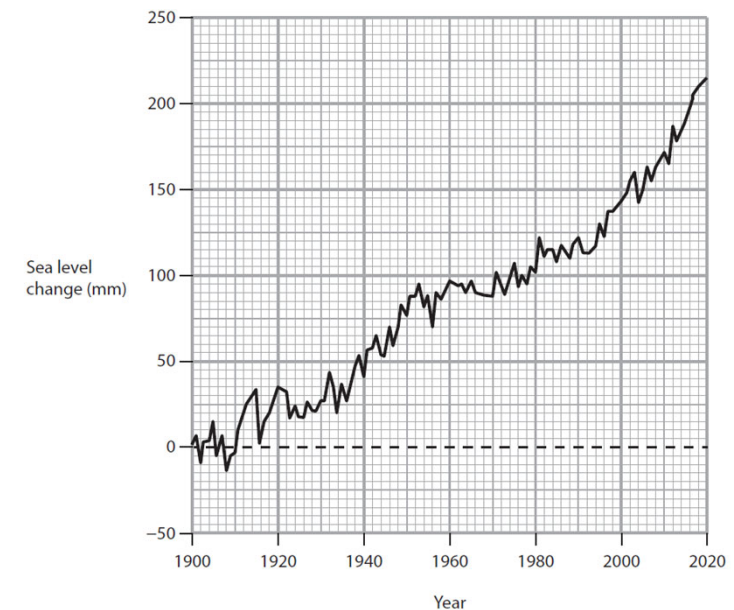


Figure 7b

Sea level change, 1900–2020

Question number	Indicative content
7 (f)	<p>AO2 (4 marks), AO3 (4 marks), AO4 (4 marks)</p> <p>Marking instructions Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p>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:</p> <p>AO2</p> <ul style="list-style-type: none"> Deforestation has a range of negative effects on fragile environments including loss of biodiversity, contribution to climate change, increased soil erosion. Rising global temperatures have the potential to have wide ranging impacts on fragile ecosystems. Rising global temperatures are likely to increase risk of desertification for areas of the globe, introducing desertification into some areas, and making it worse in others. Increased desertification has the potential to impact livelihoods across the globe in terms of the availability of land for agriculture. <p>AO3</p> <ul style="list-style-type: none"> Changes in temperatures are likely to have more wide-ranging impacts on the globe than just deforestation. Changing rainfall patterns will not only affect forests processes, but a wider range of areas with many facing increased rainfall and hazards associated with this. Global temperatures have the potential to contribute to sea level rise which many would argue poses a greater threat to fragile environments. The variation in patterns of surface water will affect humidity and therefore rainfall patterns and as a consequence risk of desertification. <p>AO4</p> <ul style="list-style-type: none"> Figure 7b shows there is variation in the causes of deforestation between tropical and temperate regions. Figure 7b shows how agriculture contributes to deforestation in all global regions, although to different extents. Figure 7b shows how wildfires have contributed to over half of deforestation in North America and Russia, China and South Asia. Figure 7c shows potential effects of deforestation: loss of biodiversity; increased atmospheric CO₂; increased drought; disruptions to water cycle; increased flooding; increased wildfires. Figure 7c demonstrates how deforestation has immediate and long terms impacts. Figure 7c demonstrates how deforestation can have effects beyond the forest ecosystem.

Question number	Indicative content	
Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–4	<ul style="list-style-type: none"> Demonstrates isolated elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements are supported by limited evidence. (AO3) Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	5–8	<ul style="list-style-type: none"> Demonstrates elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	9–12	<ul style="list-style-type: none"> Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) Applies understanding to deconstruct information and provides logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

(g) Discuss the view:

"Climate change is the greatest threat to fragile environments."

Use Figures 7b and 7c from the Resource Booklet, and your own knowledge and understanding to support your answer.

You **must** refer to the resources in your answer.

(12)

Climate change is the primary reason for the trends shown in figure 7b, as the atmospheric temperature rises even minimally globally, the ice caps on the North and South pole begin to melt which causes sea levels to rise. This is a huge threat to fragile environments as flooding occurs which damages wildlife and ecosystems as well as the areas inhabitants. For example, Tuvalu - a small island nation in the Pacific ocean - is sinking ^{it is very vulnerable} due to this very issue. Being only 5 meters above sea levels, the trend in figure 7b demonstrates ^{a difference of} the sea levels have risen consistently over the last century from 35 mm to 215 mm in 2020. Islands like Tuvalu are prone to damage due to this change and it's 11,500 inhabitants must be evacuated by 2050 - by which the island will become inhabitable. This is directly because of global warming and demonstrates how its effect on sea levels can wreak havoc on fragile environments like islands.

Figure 7c also brings attention to many issues climate change can entail - primarily an increased frequency of natural disasters. Only flooding, heat waves and forest fires are mentioned in figure 7c but climate change can also catalyse so many more disasters. These include hurricanes, ~~heat waves~~ ^{tornadoes} and tropical storms. These can destroy habitats, reducing biodiversity in fragile environments as well as affecting human activity. Global warming allows more

areas to reach the 27°C, tropical storms require to form and increase sea levels which cause flooding. Also mentioned in figure 7c, food growth is also directly impacted by climate change, not only affecting humans economically and socially, but also causing a changed feeding regime in wildlife and disrupting food chains.

As well as these points, fragile environments such as coral reefs are affected by climate change and rise in ocean temperature causing coral bleaching and acidification. This kills the biodiversity and destroys those fragile environments globally.

All in all, it is clear climate change is the driving force causing damage to fragile environments on a global scale. ^{increased} with natural disasters such as tropical storms in the Philippines in recent years for example and coral bleaching in the Great Barrier Reef, it is undeniable fragile environments are incredibly vulnerable in the face of climate change. Although other factors may contribute to these issues, climate change is the most significant instigator. (Total for Question 7 = 35 marks)



Support

Support for you at every stage

Free Resources and support	Planning, teaching and learning	Exam preparation and assessment	Results support
Getting Started Guide	✓		
Training Events (Face-to-Face & Online)	✓		
Subject Advisor Support	✓	✓	✓
Community Forums	✓	✓	✓
Schemes of Work	✓		
Skills Mapping	✓		
Sample Assessment Materials	✓	✓	
Examiner Reports	✓	✓	✓
Exemplar Marked Responses		✓	
Past Papers		✓	
examWizard		✓	
Mark Schemes		✓	
ResultsPlus Mock Exam Analysis		✓	
Results Plus		✓	✓
Access to Scripts Service (ATS)			✓

Teaching and Learning Materials online

International GCSEs Geography (2017)



Course materials

FILTERS

CATEGORIES

- ☒ Specification and sample assessments (3)
- ☐ Exam materials (90)
- ☐ Teaching and learning materials (27)

CONTENT TYPE ^

- ☒ All
- ☐ Notice (1)
- ☐ Sample assessment material (1)
- ☐ Specification (1)

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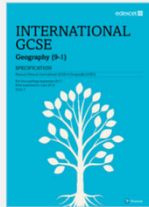
Specification and sample assessments (3)

SORT BY Latest v

EXPAND ALL

- Specification v
- Notice v
- Sample assessment material v

Specification



Teaching from: 2017
External assessment from: 2019

Our Pearson Edexcel International GCSE (9-1) Geography specification and support materials have been developed with the help of teachers, higher education representatives and subject expert groups.

The qualification supports progression to further study, with up-to-date content reflecting the latest thinking in the subject. Pearson Edexcel International GCSE (9-1) is comparable to the UK reformed GCSEs in terms of the level of demand and assessment standards.

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Course materials

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- [Exam materials \(90\)](#)
- [Teaching and learning materials \(27\)](#)



Teaching support and training

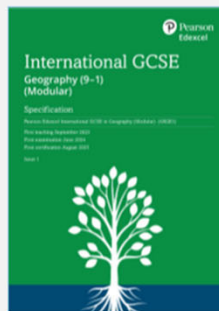
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International GCSEs Geography (Modular)



Specification



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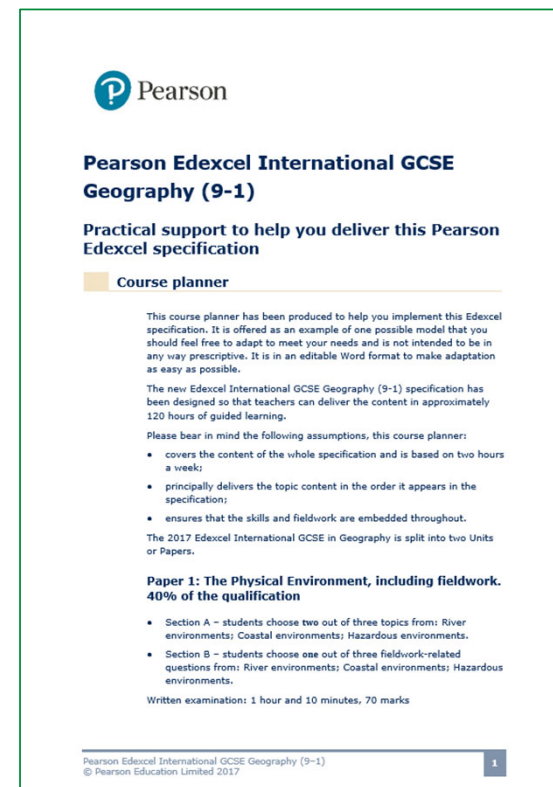
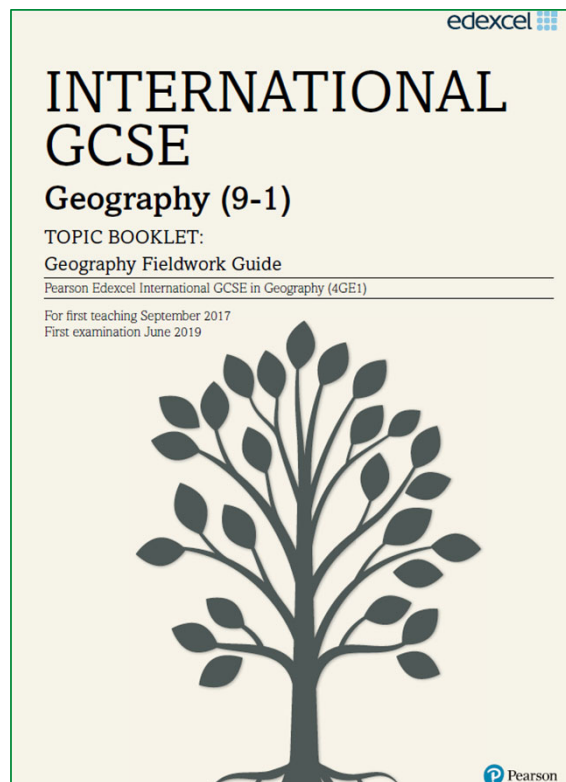
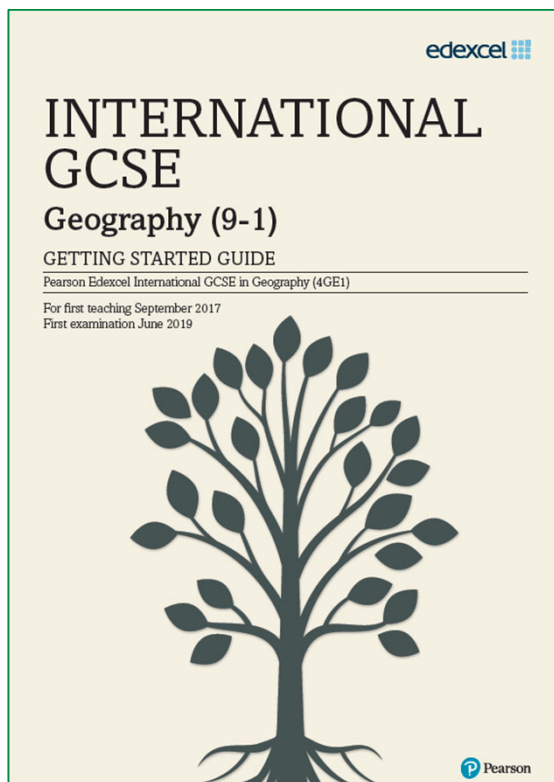
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Course materials

- Specification and sample assessments (2)
- Exam materials (19)
- Forms and administration (1)
- Teaching and learning materials (5)





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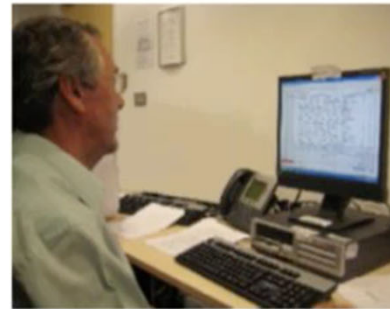
ResultsPlus



1.
Student
takes exam
on paper



2.
Exam papers
scanned



3.
Examiners
mark papers
online



4.
Performance
reports
shared



- A free tool for teachers which helps you make quick homework assignments, topic tests and mock exams.
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Access to Scripts (ATS) is a free online portal which allows teachers to immediately access electronically marked exam papers

Provides enhanced transparency and

- Offers transparent approach to marking process
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For more information on ATS, and the post results windows, visit our post-results pages.



Pearson published resources

Student Book

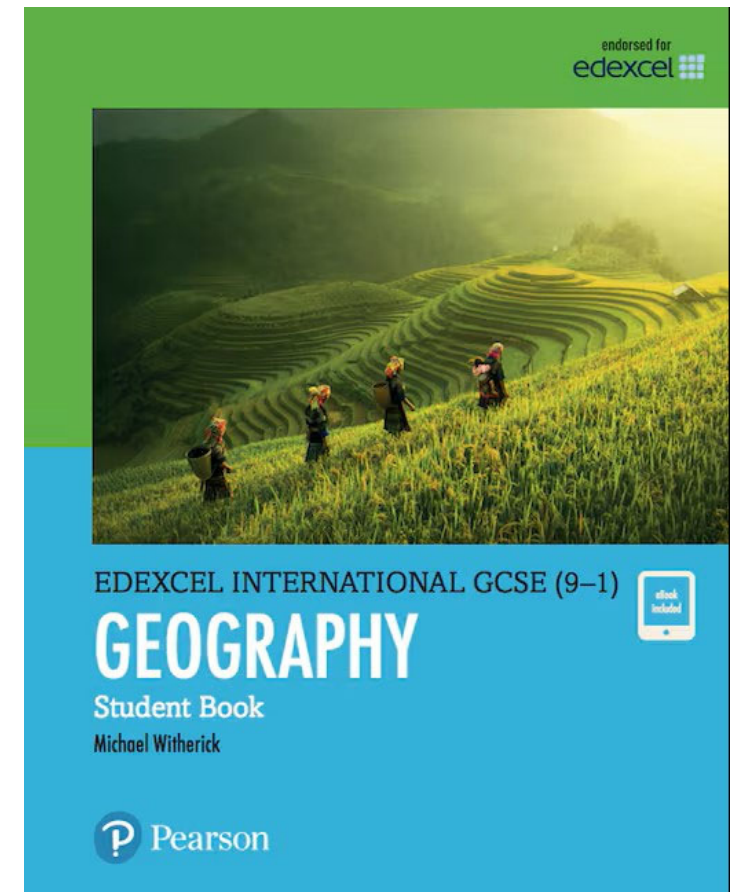
Edexcel International GCSE (9-1): Geography

Student Book

ISBN: 9780435184834

For more information and access
to samples visit:

www.pearson.com/international-schools



Subject Updates

International GCSEs Geography (Modular)

March 2025 Geography Subject Update

Subject update | 4 March 2025

This update contains useful information, news and advice for Edexcel Geography teachers including guidance on how to submit A level Geography samples online and updated GCSE Geography textbooks.

Geography in the News!

China's next mega dam : Progress or disaster?

Geography in the News aims to stimulate discussion about the relevance of geography to our lives and its importance in helping us to make sense of the world around us. We have selected a relevant



[See more](#)

News and updates

| 4 March 2025

[February 2025 Geography Subject Update](#)

| 7 February 2025

[January 2025 Geography Subject Update](#)

| 8 January 2025

Contact your dedicated Subject Advisor

If you have any questions, please do book time in with the dedicated subject advisor.

Jon Wolton

Telephone: +44 (0) 344 463 2535

qualifications.pearson.com/contactus

Email: TeachingGeography@pearson.com

Booking some time in with the subject advisor, please see [calendar availability here](#).



Questions



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