

GCSE (9–1) Geography A (Geographical Themes)

J383/02 The World Around Us

Sample Resource Booklet for Summer 2022 only

Please ensure you have referred to the
[Changes for 2022](#) qualification web page

Version 1.3

Time allowed: 45 minutes

INSTRUCTIONS

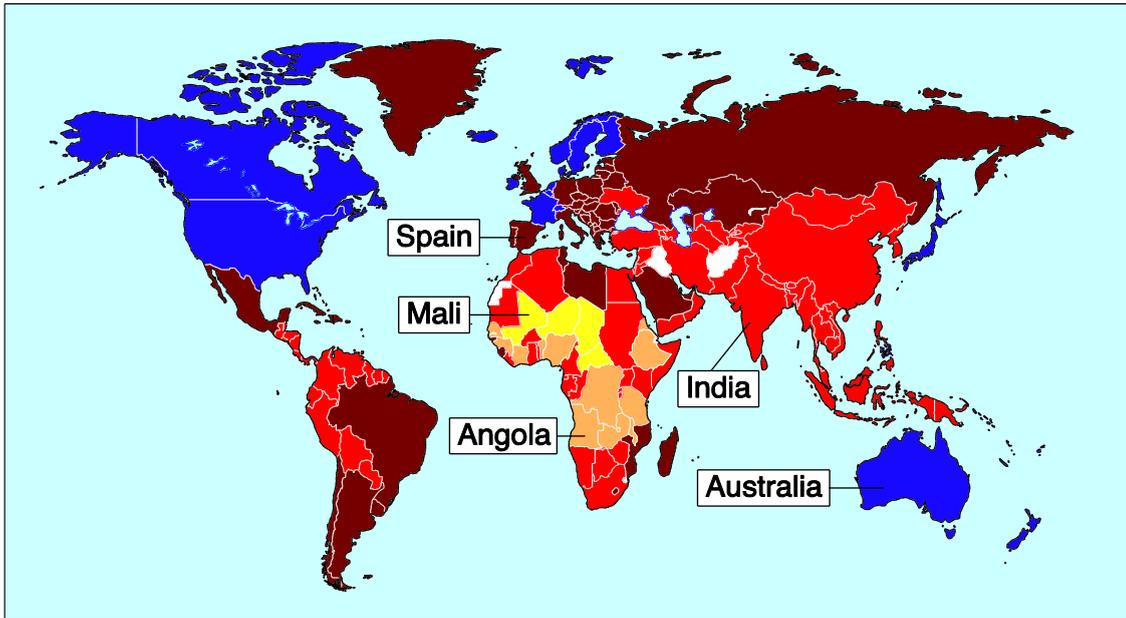
- Do **not** send this Resource Booklet for marking. Keep it in the centre or recycle it.

INFORMATION

- This document has **8** pages.

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Fig. 1 Human Development Index (HDI) scores for countries of the world



Key:

over 0.950	very high
0.800 – 0.949	high
0.500 – 0.799	medium
0.350 – 0.499	low
under 0.350	very low
no data	

Fig. 2 Part of a polar marine ecosystem

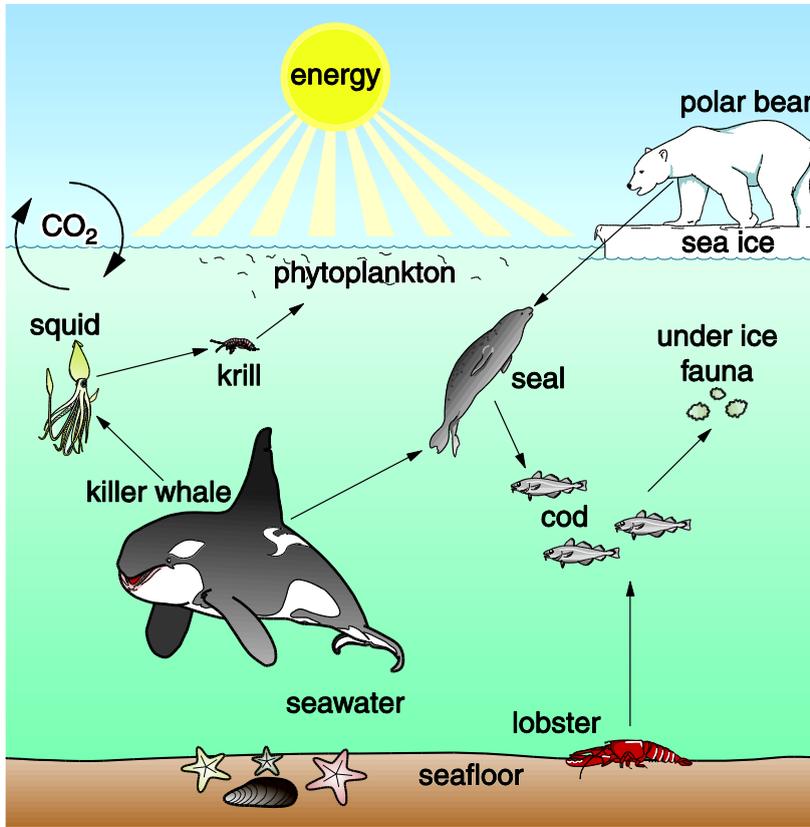


Fig. 3 A line graph showing climate changes between the years 1000 and 1900

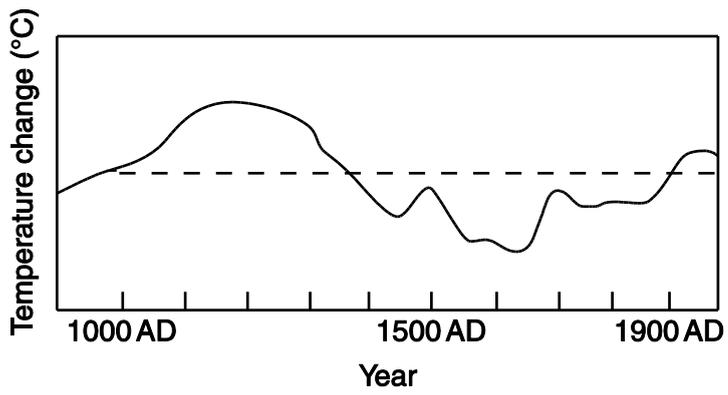


Fig. 4 An Artist's impression of global warming



Summary of updates

Date	Version	Details
July 2021	1.2	Updated copyright acknowledgements.
October 2021	1.3	Updated for optionality

Copyright Information:

Fig. 5: © 1992-2015 Andrew B. Singer, reproduced by kind permission of Andrew Singer, www.andysinger.com

Fig. 6: P Based on Figure SPM.2 from IPCC, 2014: Summary for policymakers. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

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GCSE (9–1) Geography A (Geographical Themes)

J383/02 The World Around Us

Version 1.2

Sample Question Paper for Summer 2022 only

Date – Morning/Afternoon

Time allowed: 45 minutes



You must have:

- the Resource Booklet (inside this document)

You may use:

- a scientific or graphical calculator
- a ruler (cm/mm)



First name											
Last name											
Centre number							Candidate number				

Changes for summer 2022 are highlighted in red below.

IMPORTANT – please note for the summer 2022 exam:

- The SPaG marks for this component for the summer 2022 exam may be in either Section A (the compulsory questions) or Section B (the optional questions).

INSTRUCTIONS

- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided. If you need extra space use the lined pages at the end of this booklet. The question numbers must be clearly shown.
- Answer **all** the questions in Section A.
- Choose **one** option in Section B and answer **all** the questions for that option.

INFORMATION

- The total mark for this paper is **42**.
- The marks for each question are shown in brackets [].
- Quality of extended response will be assessed in questions marked with an asterisk (*).
- Spelling, punctuation and grammar (SPaG) and the use of specialist terminology will be assessed in questions marked with a pencil (✎).
- This document consists of **12** pages.

ADVICE

- Read each question carefully before you start your answer.

Section A

Answer **all** the questions.

People of the Planet

1 Study **Fig. 1** in the separate Resource Booklet, which shows Human Development Index (HDI) scores for countries of the world.

(a) (i) Which of the following development indicators is used as part of the HDI calculation?

- A Birth rate per 1000 people per year
- B Infant mortality rate
- C Internet users
- D Life expectancy at birth

Write the correct letter in the box.

[1]

(ii) Using **Fig. 1**, describe the pattern of HDI scores for countries of the world.

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[3]

(b) There are a number of push and pull factors that cause rapid urbanisation in low-income developing countries (LIDCs). Explain how **two** push factors cause rapid urbanisation in LIDCs.

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[4]

Section B

Choose **one** option and answer **all** the questions for that option.

Option A – Ecosystems of the Planet

2 (a) Study **Fig. 2** in the separate Resource Booklet, a diagram showing part of a polar marine ecosystem.

(i) Describe how the cod, seal and polar bear shown in **Fig. 2** are connected in this ecosystem.

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[2]

(ii) Which of the following is a biotic component in the polar marine ecosystem shown in **Fig. 2**?

- A carbon dioxide
- B phytoplankton
- C seafloor
- D sun's energy

Write the correct letter in the box.

[1]

(b) Describe the climate found in tropical savannah grassland ecosystems.

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[3]

- (c) The Amazon Rainforest in Brazil experiences deforestation. Between 2012 and 2013 6 000 km² of rainforest was cleared. In two Brazilian states there was a combined total of 2 400 km² of rainforest cleared between 2012 and 2013.

Calculate the percentage of rainforest cleared in the two states out of the total rainforest lost between 2012 and 2013.

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[1]

- (d) Explain how nutrients are recycled in the tropical rainforest.

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[4]

Option B – Environmental threats to our Planet

- 3 (a) Study **Fig. 3** in the separate Resource Booklet, which shows a line graph showing climate changes between the years 1000 and 1900.

Which of these years was in the medieval warm period?

- A 1200
- B 1500
- C 1700
- D 1900

Write the correct letter in the box.

[1]

- (b) Study **Fig. 4** in the separate Resource Booklet, which shows a cartoon showing an artist’s impression of global warming.

Using evidence from **Fig. 4**, explain how human activity creates the enhanced greenhouse effect.

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[4]

- (c) Study **Fig. 5** in the separate Resource Booklet, a map showing the consequences of climate change split into three categories (physical, biological and human)

Using **Fig. 5**, state which category has been affected most by the consequences of climate change. Give a reason for your answer.

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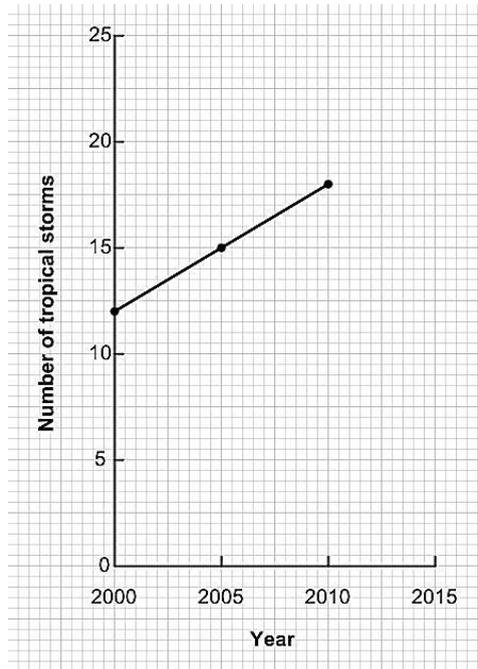
.....

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[2]

Graph to show the number of tropical storms globally



(d) Using the graph above, make a prediction for the number of tropical storms globally in 2015.

..... **[1]**

(e) Explain the distribution of tropical storms and whether this has changed over time.

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..... **[3]**

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Oxford Cambridge and RSA

...day June 20XX – Morning/Afternoon

GCSE (9–1) Geography A (Geographical Themes)

J383/02 The World Around Us

SAMPLE MARK SCHEME

Duration: 45 minutes

MAXIMUM MARK 42

This document consists of 20 pages

MARKING INSTRUCTIONS**PREPARATION FOR MARKING**

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RM assessor Online Training*; *OCR Essential Guide to Marking*.
2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are posted on the RM Cambridge Assessment Support Portal <http://www.rm.com/support/ca>
3. Log-in to *RM assessor* and mark the **required number** of practice responses (“scripts”) and the **required number** of standardisation responses.

YOU MUST MARK 5 PRACTICE AND 10 STANDARDISATION RESPONSES BEFORE YOU CAN BE APPROVED TO MARK LIVE SCRIPTS.

MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the *RM assessor* 50% and 100% deadlines. If you experience problems, you must contact your Team Leader without delay.
4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone, email or via the *RM assessor* messaging system.
5. **Crossed out responses**
Where a candidate has crossed out a response and provided a clear alternative then the crossed out response is not marked. Where no alternative response has been provided, examiners may give candidates the benefit of the doubt and mark the crossed out response where legible.

Rubric Error Responses – Optional Questions

Where candidates have a choice of question across a whole paper or a whole section and have provided more answers than required, then all responses are marked and the highest mark allowable within the rubric is given. Enter a mark for each question answered into RM assessor, which will select the highest mark from those awarded. (The underlying assumption is that the candidate has penalised themselves by attempting more questions than necessary in the time allowed.)

Multiple Choice Question Responses

When a multiple choice question has only a single, correct response and a candidate provides two responses (even if one of these responses is correct), then no mark should be awarded (as it is not possible to determine which was the first response selected by the candidate).

When a question requires candidates to select more than one option/multiple options, then local marking arrangements need to ensure consistency of approach.

Contradictory Responses

When a candidate provides contradictory responses, then no mark should be awarded, even if one of the answers is correct.

Short Answer Questions (requiring only a list by way of a response, usually worth only **one mark per response**)

Where candidates are required to provide a set number of short answer responses then only the set number of responses should be marked. The response space should be marked from left to right on each line and then line by line until the required number of responses have been considered. The remaining responses should not then be marked. Examiners will have to apply judgement as to whether a 'second response' on a line is a development of the 'first response', rather than a separate, discrete response. (The underlying assumption is that the candidate is attempting to hedge their bets and therefore getting undue benefit rather than engaging with the question and giving the most relevant/correct responses.)

Short Answer Questions (requiring a more developed response, worth **two or more marks**)

If the candidates are required to provide a description of, say, three items or factors and four items or factors are provided, then mark on a similar basis – that is downwards (as it is unlikely in this situation that a candidate will provide more than one response in each section of the response space.)

Longer Answer Questions (requiring a developed response)

Where candidates have provided two (or more) responses to a medium or high tariff question which only required a single (developed) response and not crossed out the first response, then only the first response should be marked. Examiners will need to apply professional judgement as to whether the second (or a subsequent) response is a 'new start' or simply a poorly expressed continuation of the first response.

6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there then add a tick to confirm that the work has been seen.
7. Award No Response (NR) if:
- there is nothing written in the answer space
- Award Zero '0' if:
- anything is written in the answer space and is not worthy of credit (this includes text and symbols).
- Team Leaders must confirm the correct use of the NR button with their markers before live marking commences and should check this when reviewing scripts.
8. The scoris **comments box** is used by your Team Leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.**
If you have any questions or comments for your Team Leader, use telephone, email or the scoris messaging system.
9. Assistant Examiners will send a brief report on the performance of candidates to their Team Leader (Supervisor) via email by the end of the marking period. The report should contain notes on particular strengths displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.
10. For answers marked by levels of response:
- To determine the level – start at the highest level and work down until you reach the level that matches the answer
 - To determine the mark within the level, consider the following:

Descriptor	Award mark
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

11. Annotations

Annotation	Meaning

12. Subject-specific Marking Instructions

INTRODUCTION

Your first task as an Examiner is to become thoroughly familiar with the material on which the examination depends. This material includes:

- the specification, especially the assessment objectives
- the question paper and its rubrics
- the mark scheme.

You should ensure that you have copies of these materials.

You should ensure also that you are familiar with the administrative procedures related to the marking process. These are set out in the OCR booklet **Instructions for Examiners**. If you are examining for the first time, please read carefully **Appendix 5 Introduction to Script Marking: Notes for New Examiners**.

Please ask for help or guidance whenever you need it. Your first point of contact is your Team Leader.

USING THE MARK SCHEME

Please study this Mark Scheme carefully. The Mark Scheme is an integral part of the process that begins with the setting of the question paper and ends with the awarding of grades. Question papers and Mark Schemes are developed in association with each other so that issues of differentiation and positive achievement can be addressed from the very start.

This Mark Scheme is a working document; it is not exhaustive; it does not provide 'correct' answers. The Mark Scheme can only provide 'best guesses' about how the question will work out, and it is subject to revision after we have looked at a wide range of scripts.

Please read carefully all the scripts in your allocation and make every effort to look positively for achievement throughout the ability range. Always be prepared to use the full range of marks.

LEVELS OF RESPONSE QUESTIONS:

The indicative content indicates the expected parameters for candidates' answers, but be prepared to recognise and credit unexpected approaches where they show relevance.

Using 'best-fit', decide first which set of level descriptors best describes the overall quality of the answer. Once the level is located, adjust the mark concentrating on features of the answer which make it stronger or weaker following the guidelines for refinement.

Highest mark: If clear evidence of all the qualities in the level descriptors is shown, the HIGHEST Mark should be awarded.

Lowest mark: If the answer shows the candidate to be borderline (i.e. they have achieved all the qualities of the levels below and show limited evidence of meeting the criteria of the level in question) the LOWEST mark should be awarded.

Middle mark: This mark should be used for candidates who are secure in the level. They are not 'borderline' but they have only achieved some of the qualities in the level descriptors.

Be prepared to use the full range of marks. Do not reserve (e.g.) highest level marks 'in case' something turns up of a quality you have not yet seen. If an answer gives clear evidence of the qualities described in the level descriptors, reward appropriately.

	AO1	AO2	AO3
Comprehensive	A range of detailed and accurate knowledge that is fully relevant to the question.	A range of detailed and accurate understanding that is fully relevant to the question.	Detailed and accurate interpretation through the application of relevant knowledge and understanding. Detailed and accurate analysis through the application of relevant knowledge and understanding. Detailed and substantiated evaluation through the application of relevant knowledge and understanding. Detailed and substantiated judgement through the application of relevant knowledge and understanding.
Thorough	A range of accurate knowledge that is relevant to the question.	A range of accurate understanding that is relevant to the question.	Accurate interpretation through the application of relevant knowledge and understanding. Accurate analysis through the application of relevant knowledge and understanding. Supported evaluation through the application of relevant knowledge and understanding. Supported judgement through the application of relevant knowledge and understanding.
Reasonable	Some knowledge that is relevant to the question.	Some understanding that is relevant to the question.	Some accuracy in interpretation through the application of some relevant knowledge and understanding. Some accuracy in analysis through the application of some relevant knowledge and understanding. Partially supported evaluation through the application of some relevant knowledge and understanding. Partially supported judgement through the application of some relevant knowledge and understanding.
Basic	Limited knowledge that is relevant to the topic or question.	Limited understanding that is relevant to the topic or question.	Limited accuracy in interpretation through lack of application of relevant knowledge and understanding. Limited accuracy in analysis through lack of application of relevant knowledge and understanding. Un-supported evaluation through lack of application of knowledge and understanding. Un-supported judgement through lack of application of knowledge and understanding.

Question			Answer	Marks	Guidance
1	(a)	(i)	D: Life expectancy at birth (✓)	1	(✓)
		(ii)	<p>There is an uneven spread of HDI across the world (✓) with four continents which have countries with very high HDI scores (✓) (C)</p> <p>There is an uneven spread of HDI across the world (✓) with Africa the only continent with the lowest HDI scores (✓) (C)</p>	3	<p>2 x 1 (✓) for describing the pattern of HDI scores for countries of the world</p> <p>1 x 1 (C) for communicating the answer in an appropriate and logical order</p>
	(b)		<p>Mechanisation of farming encourages people to move to urban areas (✓) leading to the building of housing or growth of shanty towns (DEV)</p> <p>People need to find work (✓) so there's an increased demand for informal jobs to support their families (DEV)</p> <p>Poor standard of living in rural areas (✓) and government investment in urban areas encourages population movement on a larger scale (DEV)</p> <p>Few opportunities for education (✓) encouraging people to move to give their children opportunities (DEV)</p> <p>Natural hazards such as drought or flooding (✓) encourage more people to move to urban areas in search of work and shelter (DEV)</p>	4	<p>2 x 1 (✓) for identifying push factors</p> <p>2 x 1 (DEV) for explanation of how push factors cause rapid urbanisation</p>

Question	Answer	Marks	Guidance
(c)*	<p>Case Study: a major LIDC or EDC city</p> <p>Level 4 (10–12 marks)</p> <p>An answer at this level demonstrates comprehensive knowledge of how migration influences the growth and character of cities (AO1) and a comprehensive understanding of the concepts of migration and growth and character of cities (AO2). There will be a comprehensive evaluation of how far migration influences the growth and character of cities (AO3).</p> <p>This will be shown by including well-developed ideas about the concepts of migration and growth and character in the cities and how migration influences the growth and character of cities.</p> <p>The answer must also include place-specific details for the named LIDC/EDC city.</p> <p>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</p> <p>Level 3 (7–9 marks)</p> <p>An answer at this level demonstrates thorough knowledge of how migration influences the growth and character of cities (AO1) and a thorough understanding of the concepts of migration and growth and character of cities (AO2). There will be a thorough evaluation of how far migration influences the growth and character of cities (AO3).</p>	12	<p>Case study will be marked using 4 levels:</p> <p>Indicative content</p> <p>Concept of migration can include international (immigration) as well as internal movements of people from within the country.</p> <p>Influence of migration could refer to rural to urban, urban to urban, or international migration.</p> <p>The influence of migration on the city's growth and character could include:</p> <ul style="list-style-type: none"> • Changes to the cities growth such as increased demand for housing, infrastructure investment and building as well as demand for services. • Impacts on the character of the city through architecture, housing, inequalities, consumerism and gentrification. • Globalisation of jobs, services and leisure activities • Increased evidence of traffic congestion, pollution, increased commuting and waste generated • Impacts on the character of the city through languages spoken, cultural activities and types of food <p>These ideas will depend upon the named major city chosen.</p> <p>Examples of well-developed ideas: The city of Shanghai has experienced significant population growth. In 2000 the city was 16.4 million people, by 2010 it was 23 million. Shanghai shows how high rates of internal and international migration can influence the cities growth. It has continued to grow and covers approximately 2,500sq miles, expanding east of the river in the 1990s, this area is</p>

Question	Answer	Marks	Guidance
	<p>This will be shown by including well-developed ideas about either concepts of migration and growth and character in the cities and how migration influences the growth and character of cities and developed ideas about the other question focus (concept or influence).</p> <p>The answer must also include place-specific details of the named LIDC/EDC city.</p> <p>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</p> <p>Level 2 (4–6 marks) An answer at this level demonstrates reasonable knowledge of how migration influences the growth and character of cities (AO1) and a reasonable understanding of the concepts of migration and growth and character of cities (AO2). There will be a reasonable evaluation of how far migration influences the growth and character of cities (AO3).</p> <p>This will be shown by including developed ideas about either concepts of migration and growth and character in the cities or how migration influences the growth and character of cities and simple ideas about the other question focus (concept or influence).</p> <p>The answer must also include named details within the LIDC/EDC city.</p> <p>The information has some relevance and is presented with limited structure. The information is supported by limited evidence.</p>		<p>called Pudong New District. Shanghai has high population densities at 120,000 people km² and it continues to receive migrants as it has become an economic, financial and trade centre. The character of the city has become increasingly modern, congested and polluted as it continues to grow into the suburbs.</p> <p>For the city of Shanghai migration is heavily influencing the growth of the city through the fast pace of house building and transport links and the character is changing gradually over time through redevelopment and international influences particularly through industry, services and retail. The local government; are keen to show Shanghai's past so Shikumen houses are being preserved and these are used for cottage industries and boutique shops.</p> <p>Examples of developed ideas: The city of Shanghai has experienced population growth. In 2000 the city was 16.4 million people, by 2010 it was 23 million. Shanghai shows how migration can influence the cities growth. Shanghai has high population densities at 120,000 people km² and it still continues to receive migrants, as it has become an important area for trade. The character of the city has become increasingly more modern as it continues to grow outwards into the suburbs. Shanghai is experiencing lots of migration which is causing the city to grow so houses are being built. The character of the city is changing as new areas are built and foreign people and business have arrived. Some of the older local houses (Shikumen) are being kept for businesses.</p> <p>Examples of simple ideas: The city of Shanghai has experienced lots of people moving there. Shanghai keeps growing outwards as more people come and houses and roads are built. Big companies like</p>

Question	Answer	Marks	Guidance
	<p>Level 1 (1–3 marks) An answer at this level demonstrates basic knowledge of how migration influences the growth and character of cities (AO1) and a basic understanding of the concepts of migration and growth and character of cities (AO2). There will be a basic evaluation of how far migration influences the growth and character of cities (AO3).</p> <p>This will be shown by including simple ideas about either concepts of migration and growth and character in the cities or how migration influences the growth and character of cities. No developed points are made.</p> <p>Named examples only receives no place specific detail credit.</p> <p>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</p> <p>0 marks No response worthy of credit.</p>		<p>McDonalds come to Shanghai and local people eat differently. As there are lots of people now there are also lots of cars and this causes congestion on the roads and bad pollution in the air. The city keeps getting bigger with more people and they need to live somewhere. Also these people need jobs so there are new types of jobs. Some really old areas are looked after so people can see the past.</p>
	<p> Spelling, punctuation and grammar and use of specialist terminology (SPaG) are assessed using the separate marking grid in Appendix 1.</p>	3	

Question			Answer	Marks	Guidance
2	(a)	(i)	seal will eat the cod (✓) polar bear will eat the seal (✓) or connected by the food chain/web (✓) + example (✓)	2	2 x 1 (✓) for each valid description
		(ii)	B: Phytoplankton (✓)	1	(✓)
	(b)		Extremely low rainfall November – March (✓) Heavy rains July – Sept (✓) High temperatures particularly March – October (✓) Highest temperatures before heavy rains (✓) Coolest period just after heavy rains (✓)	3	3 x 1 (✓) for each valid description Answer must focus on tropical savannah grasslands and not temperate grasslands
	(c)		40% (✓)	1	(✓)
	(d)		Leaves fall from trees and decay on rainforest floor due to warm moist conditions (✓) Fungi and bacteria decompose organic matter which forms humus (✓) Nutrients enter the rainforest soil and they are dissolved by rain (✓) Nutrients taken up by shallow tree and plant roots helping rapid growth (✓)	4	4 x 1 (✓) for each valid explanation point of how nutrients are recycled in the tropical rainforest Must focus on trees/leaves for (re)cycling within the tropical rainforest
	(e)*		Level 3 (6–8 marks) An answer at this level demonstrates thorough understanding of threats to biodiversity in tropical rainforests and coral reefs (AO2) and reasonable analysis in comparing the threats to biodiversity between tropical rainforests and coral reefs (AO3). There will be a thorough judgement of the extent to which the statement is agreed with (AO3). This will be shown by including well-developed ideas both about the threats to the biodiversity of tropical rainforests and coral reefs and how far the threats are greater in tropical rainforests. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.	8	Answer will be marked using 3 levels: Indicative content Threat(s) must focus on biodiversity and could include: Tourism, farming, population increase, pollution, mining, climate change, sedimentation, overfishing, habitat loss, resource consumption and environmental degradation. A comparison of the threats to biodiversity in tropical rainforests and coral reefs could include similarities (tourism, farming, pollution) and differences (climate change, sedimentation, overfishing) A judgement of the threats to biodiversity could include rates and severity of changes to biodiversity.

Question	Answer	Marks	Guidance
	<p>Level 2 (3–5 marks)</p> <p>An answer at this level demonstrates reasonable understanding of threats to biodiversity in tropical rainforests and coral reefs (AO2) and basic analysis in comparing the threats to biodiversity between tropical rainforests and coral reefs (AO3). There will be a reasonable judgement of the extent to which the statement is agreed with (AO3).</p> <p>This will be shown by including developed ideas about the threats to the biodiversity of tropical rainforests and coral reefs and how far the threats are greater in tropical rainforests.</p> <p>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</p> <p>Level 1 (1–2 marks)</p> <p>An answer at this level demonstrates basic understanding of threats to biodiversity in tropical rainforests and coral reefs (AO2) with a basic judgement of the extent to which the statement is agreed with (AO3). There will be no analysis in comparing the threats to biodiversity between tropical rainforests and coral reefs (AO3).</p> <p>This will be shown by including simple ideas about the threats to the biodiversity of tropical rainforests and coral reefs and how far the threats are greater in tropical rainforests.</p> <p>The information is basic and communicated in an unstructured way. The information is supported by limited</p>		<p>Examples of well-developed ideas: The threats to biodiversity in tropical rainforests are greater than those to coral reefs, with over half of the world's tropical rainforest having been lost whilst the figure for coral reefs is nearer to 40%. The scale of the mining, logging and farming in tropical rainforests creates a permanent impact due to habitat loss, leading to biodiversity loss. The threats to biodiversity in coral reefs can be just as important as for tropical rainforests as they can still cause permanent change and species extinction, such as through coral bleaching. Threats to biodiversity in tropical rainforests are better documented and so this may give the impression that they are greater, whereas we are learning more about coral reefs.</p> <p>Examples of developed ideas: The threats to biodiversity in tropical rainforests are greater than those to coral reefs. Mining and logging in tropical rainforests cause habitats to be destroyed, leading to a loss of plants and animals. The threats to biodiversity in coral reefs can be just as important as for tropical rainforests as they can still cause permanent change. We know more about the threats to tropical rainforests and so this may give the impression that they are greater.</p> <p>Examples of simple ideas: Rainforests are being cut down for people to farm this can kill plants and animals. Rainforests have lots of plants and animals that need looking after as they could end up dying forever. People like going swimming in coral reefs and sometimes they touch the coral and this could kill it.</p>

Question	Answer	Marks	Guidance	
		<p>evidence and the relationship to the evidence may not be clear.</p> <p>0 marks No response worthy of credit.</p>		

Question		Answer	Marks	Guidance
3	(a)	A: 1200 (✓)	1	(✓)
	(b)	<p>Evidence from Fig. 4, an identified human activity could be cattle farming (✓), burning fossil fuels / coal fired power station (✓), transport / car / air travel (✓), deforestation / burning wood (✓)</p> <p>Industrial growth (✓) has led to burning fossil fuels and so more carbon dioxide is produced (DEV), the gas enters the atmosphere and traps solar radiation (DEV) enhancing the greenhouse effect so that the world gets warmer (DEV).</p>	4	1 x 1 (✓) for using evidence from Fig. 4 3 x 1 (DEV) explain how human activity creates the enhanced greenhouse effect
	(c)	<p>Biological category has been affected most (✓) because this is the category that has the most recorded evidence shown on the map (DEV)</p> <p>Biological category has been affected most (✓) because the height of the bars on the map indicate that this category has worse consequences than physical or human categories (DEV)</p>	2	1 x 1 (✓) for judgement of most affected category 1 x 1 (DEV) for giving reason connected to the map
	(d)	21 (✓)	1	(✓)
	(e)	<p>Close to the equator (✓)</p> <p>Between 30 degrees North and South of the equator (✓)</p> <p>Atlantic hurricanes have increased since 1995 due to sea surface temperature changes (DEV)</p> <p>Over the last 30 years El Nino and variations in monsoons have influenced tropical storm tracks and their distributions (DEV)</p> <p>There has not been significant changes to distributions of tropical storms (DEV) with storms occurring in the same areas of the world but with changes in the distributions regionally (DEV)</p>	3	1 x 1 (✓) for the distribution of tropical storms 2 x 1 (DEV) for explaining whether the distribution of tropical storms has changed over time

Question	Answer	Marks	Guidance
(f)	<p>CASE STUDY: How El Niño/La Niña lead to the drought in the case study area.</p> <p>Level 3 (6–8 marks) An answer at this level demonstrates thorough understanding of the concept El Niño/La Niña (AO2) and thorough knowledge of how this can lead to drought in the case study area (AO1).</p> <p>This will be shown by including well-developed ideas both about the concept of El Niño/La Niña and how this can lead to drought. The answer must also include place-specific details of the drought area. Amount of relevant place-specific detail determines credit within level.</p> <p>Level 2 (3–5 marks) An answer at this level demonstrates reasonable understanding of the concept El Niño/La Niña (AO2) and reasonable knowledge of how this can lead to drought in the case study area (AO1).</p> <p>This will be shown by including developed ideas about either the concept of El Niño/La Niña or how this can lead to drought.</p> <p>Developed ideas but no place-specific detail credited up to middle of level.</p> <p>Level 1 (1–2 marks) An answer at this level demonstrates basic knowledge of the concept El Niño/La Niña (AO2) and basic knowledge of how this can lead to drought in the case study area (AO1).</p>	8	<p>Answer will be marked using 3 levels:</p> <p>Indicative Content Example stated must be linked to either El Niño or La Niña and how this leads to drought.</p> <p>Ideas for El Niño could include:</p> <ul style="list-style-type: none"> • Warm and cold air circulating in the Pacific Ocean • Reversal in normal winter ocean current patterns • This leads to changes in the circulating cold and warm water • There are changes in atmospheric processes over the Pacific Ocean (winds blow in opposite direction to normal) • Places like Australia suffer drought as the winds that normally bring rain change direction from west to east and bring much drier weather • This happens every 3-7 years although the frequency is increasing <p>Ideas for La Niña could include:</p> <ul style="list-style-type: none"> • Warm and cold air circulating in the Pacific Ocean • Below normal cooling of sea surface temperatures in eastern tropical Pacific Ocean • There are changes in atmospheric processes over the Pacific Ocean (the eastward trade winds strengthen, with the pattern a more intense version of normal conditions) • La Niña characterised by higher than normal pressure over central and eastern Pacific. This results in decreased cloud production and rainfall in that region

Question	Answer	Marks	Guidance
	<p>This will be shown by including simple ideas about the concept of El Niño/La Niña or how this can lead to drought.</p> <p>Named examples only receives no place specific detail credit.</p> <p>0 marks No response worthy of credit.</p>		<ul style="list-style-type: none"> • Drier than normal conditions are observed along the west coast of tropical South America and the Gulf Coast of the United States, which can lead to drought <p>Example of well-developed ideas: Australia is influenced by El Niño once every 5–7 years, although this is becoming more frequent. El Niño caused drought from 2005-2007. The trade winds usually blow east to west but El Niño caused them to blow the opposite way and so by the time they reach the east coast they are very dry and bring drought conditions to areas like New South Wales.</p> <p>Example of developed ideas: Australia is influenced by El Niño once every 5–7 years, this caused drought from 2005-2007. The winds usually blow east to west but El Niño caused them to blow the opposite way. By the time they reach the east coast they are very dry and bring drought conditions to the south east.</p> <p>Examples of simple ideas: Australia is very dry once every 5–7 years, this is happening more.</p> <p>There was no rain between 2005 and 2007.</p> <p>The winds changed direction and didn't bring rain so the east coast was very dry.</p>

APPENDIX 1

Spelling, punctuation and grammar and the use of specialist terminology (SPaG) assessment grid*

High performance 3 marks
<ul style="list-style-type: none"> • Learners spell and punctuate with consistent accuracy • Learners use rules of grammar with effective control of meaning overall • Learners use a wide range of specialist terms as appropriate
Intermediate performance 2 marks
<ul style="list-style-type: none"> • Learners spell and punctuate with considerable accuracy • Learners use rules of grammar with general control of meaning overall • Learners use a good range of specialist terms as appropriate
Threshold performance 1 mark
<ul style="list-style-type: none"> • Learners spell and punctuate with reasonable accuracy • Learners use rules of grammar with some control of meaning and any errors do not significantly hinder overall • Learners use a limited range of specialist terms as appropriate
0 marks
<ul style="list-style-type: none"> • The learner writes nothing • The learner's response does not relate to the question • The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning

Summary of Updates

Date	Version	Change
October 2021	1.2	Sample assessment materials amended after Ofqual's consultation determining that GCSE Geography would have optionality included for the Summer 2022 series.