Zig Zag Education

Geography **A Level | AQA | 7037**

A Level AQA Practice Exams

Component 2: Human Geography

Update v2.0, January 2020

zigzageducation.co.uk **POD 8031**

Contents

Teacher's Introduction

This resource provides four practice exam papers, with full mark schemes, for the **A Level AQA (7037) Component 2: Human Geography** examination. Each paper is divided into three sections; A, B, and C, to mirror the style of the AQA exam. Students should answer **all** questions in Section A, **all** questions in Section B, and **one** question from Section C.

Remember!
Always check the exam board website for new information, including changes to the specification and sample assessment material.

Should you wish to reduce photocopying during earlier revision sessions, it is possible to remove the content which relates to topics that your students are not studying and present them with only the questions they should be expected to answer.

For full mock exams the full paper should be offered so that students can become familiar with the structure of their final exam.

The resource will enable students to gain greater experience of answering questions in preparation for the Component 2 exam. The resource contains a full mark scheme for each question which will enable teachers to set and mark the work with confidence or for students to carry out self-assessment and revision.

On the following page there is an additional answer sheet for students to use where extra space is required. This should be necessary for any long answer questions. It is suggested that each student is provided with 3–4 copies of this sheet to use alongside each exam paper.

April 2018

Update v1.1, July 2019
p. 116, Paper C Q3.1 Multiple Choice answer corrected.

Update v2.0, January 2020
Update for 2020 exams:
- Four 1-mark multiple-choice questions removed from section C of each paper and replaced with one 4-mark question (AO1)

Extra Writing Paper

Paper and Question Number: .....

A Level AQA Geography

Practice Paper C

Name

Time allowed:
2 hour 30 minutes

The **maximum mark** for this paper is 120.
The number of marks for each question are shown alongside the question.

Instructions:
- Fill in your name in the space provided above.
- Answer **all** questions from Section A.
- Answer **all** question from Section B.
- Answer **one** question from Section C. Answer **either** question 3 **or** ques 4 **or** question 5.
- Use a black pen and answer all the questions in the appropriate spaces.

Advice:
- Read questions carefully, and check your answers at the end if there is t left.
- You have 2 hours and 30 minutes to complete this exam. You can choo how to divide your time, but it is recommended that you spend approximately **45 minutes on Section A**, **45 minutes on Section B**, and 6 **minutes on Section C**.

Section A

Q 1: Global systems and global governance

You should answer **all** questions in Section A.

1.1. Outline the ways trade agreements have played a role in the expansion

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GDP per capita growth (1960–20

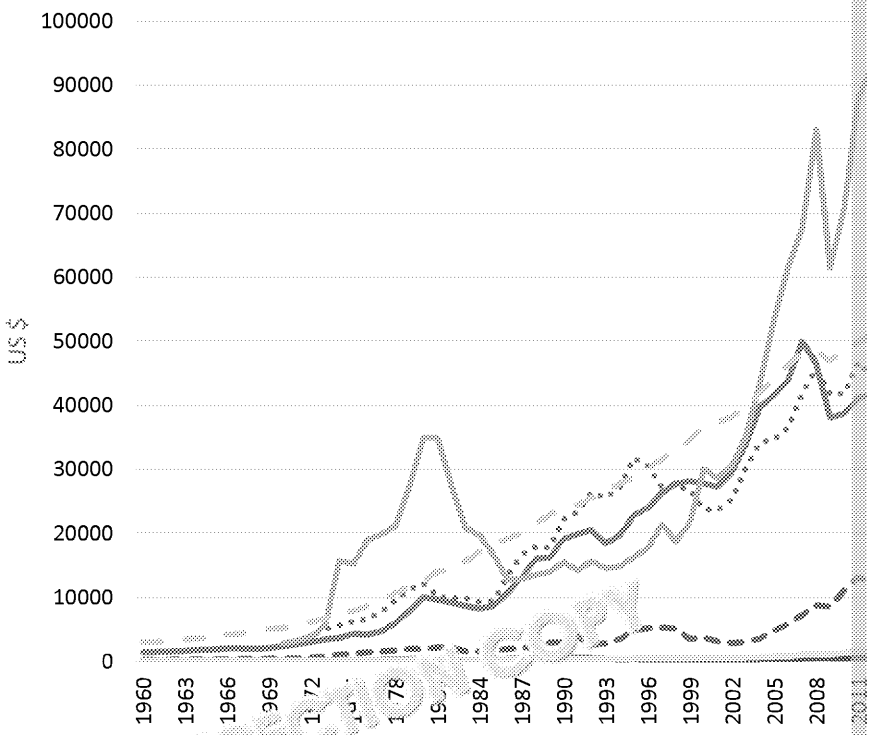

Figure 1 GDP ... growth

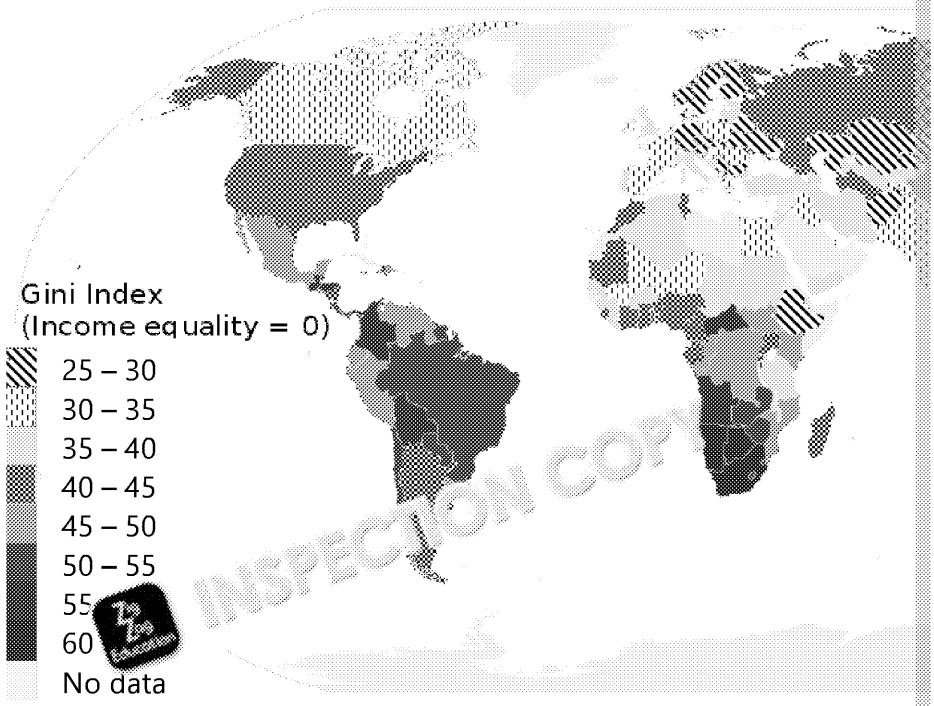

Figure 2 Gini coefficient

1.2. Using figures 1 and 2, evaluate patterns of global inequality.

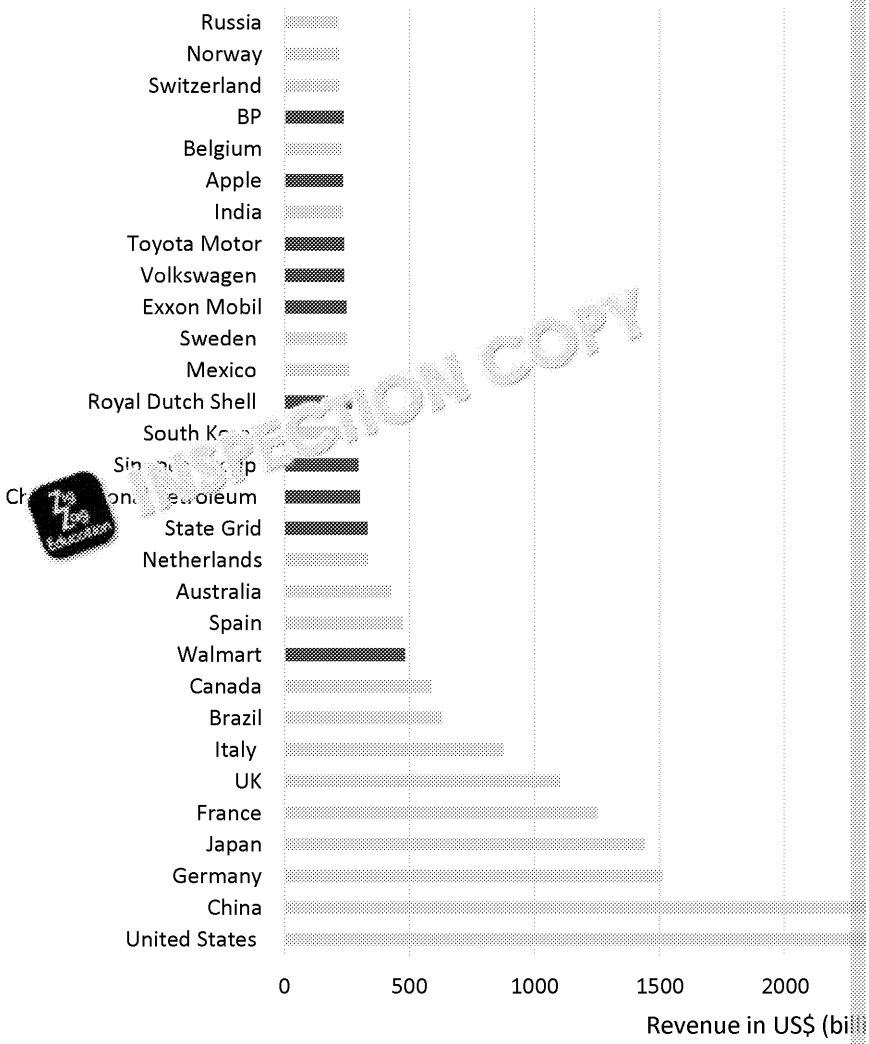

Figure 3 Top economic entities around the world, 2016

1.3. Using Figure 3 and your own knowledge, assess the impact TNCs have o

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1.4. 'NGOs play the most important role in protecting Antarctica.'

How far do you agree with this view?

(*If you need more space, please continue your answer on a se*

Section B

Q 2: Changing places

You should answer **all** questions in Section B.

2.1. Outline how past connections can shape the character of a place.

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2.2. Read the following extract, written by Julian Lea-Jones in 'The Ancient S
Sandbrook: A Vignette'.

> *A path led from St Augustine Abbey across the slopes of Brandon Hill, c*
> *St Brendan, down into the steep sided valley of the Sandbrook, which it*
> *equally steep slopes of Clifton Wood.*
>
> *Passing through the Manor of Clifton the traveller would have at last r*
> *high above the river Avon, even high enough for the traveller to see a g*
> *distant Severn Sea. From there the path continued off the far side of t*

Interpret how the information provided develops a sense of place of the
extract.

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Figure 4 Graffiti in an area of Bristol where there were protests over a new Tes

2.3. Using Figure 4 and your own knowledge, assess the extent to which me different identities, perspectives and experiences.

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2.4. 'Numbers and statistics are not an effective representation of the perso
place; therefore, quantitative data is not useful when trying to gain an u
experiences of people within a particular place.'

To what extent do you agree with this statement?

(*If you need more space, please continue your answer on a se*

Section C

You should only answer one question in Section C – choose from question 3, o

Q 3: Contemporary urban environments

3.1. Outline why a city typically has a large 'ecological footprint'.

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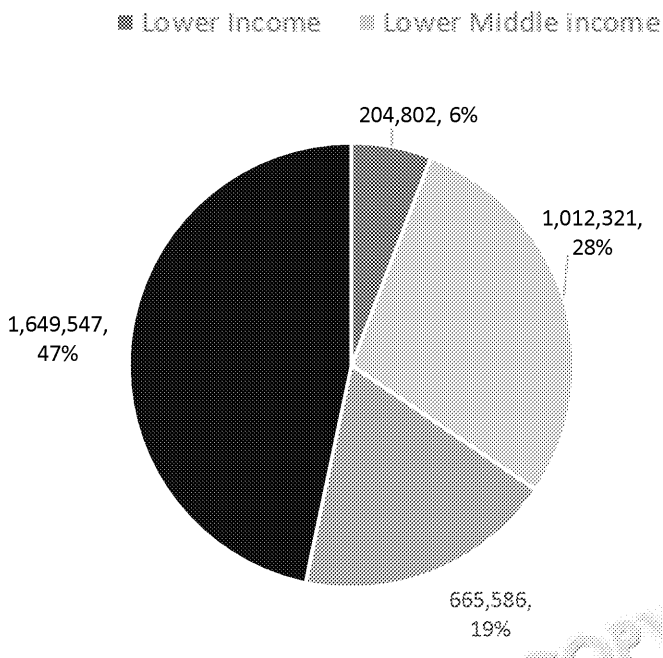

Figure 5 Current total urban waste generation (tons/day)

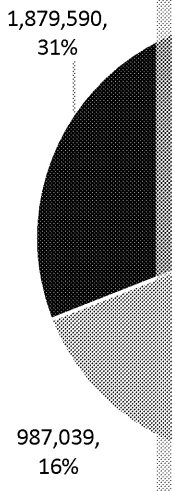

Figure 6 2025 (tons/day)

3.2. Analyse the trends shown in figures 5 and 6 regarding urban waste.

3.3. Using Figure 7 (on the following page) and your own knowledge, assess inequality is a greater issue for urban areas than social segregation.

(*If you need more space, please continue your answer on a se*

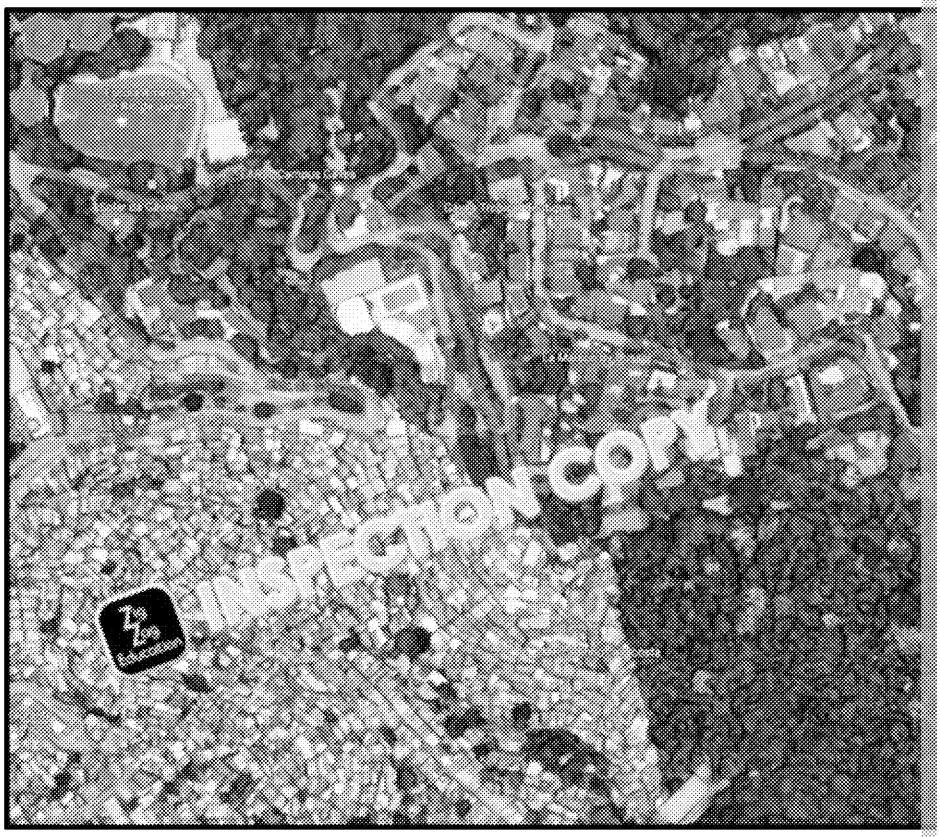

Figure 7 Area of Rio de Janeiro, Brazil

3.4. Assess the effectiveness of different strategies for dealing with waste w
sustainable cities.

3.5. To what extent can river restoration and conservation in urban areas re
urban developments have on drainage basin storage areas?

(*If you need more space, please continue your answer on a sep*

You should only answer one question in Section C – choose from question 3, o

Q 4: Population and the environment

4.1. Explain how poor air quality can affect human health.

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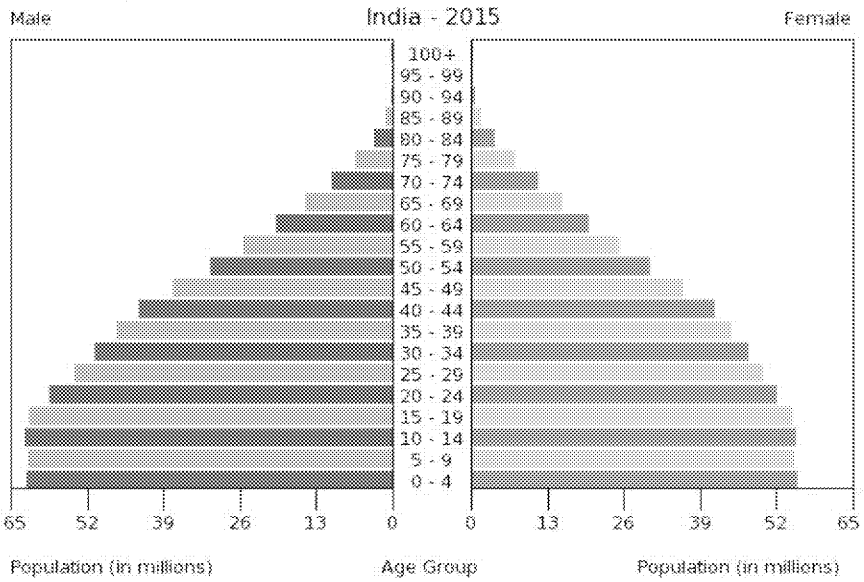

Figure 8 India's population pyramid, 2015

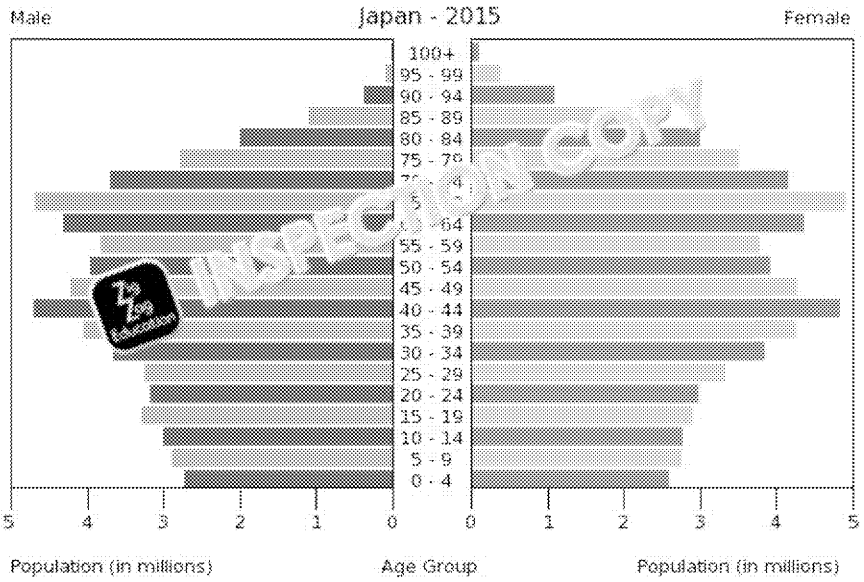

Figure 9 Japan's population pyramid, 2015

4.2. Analyse the differences between the population structures of India and
and 9.

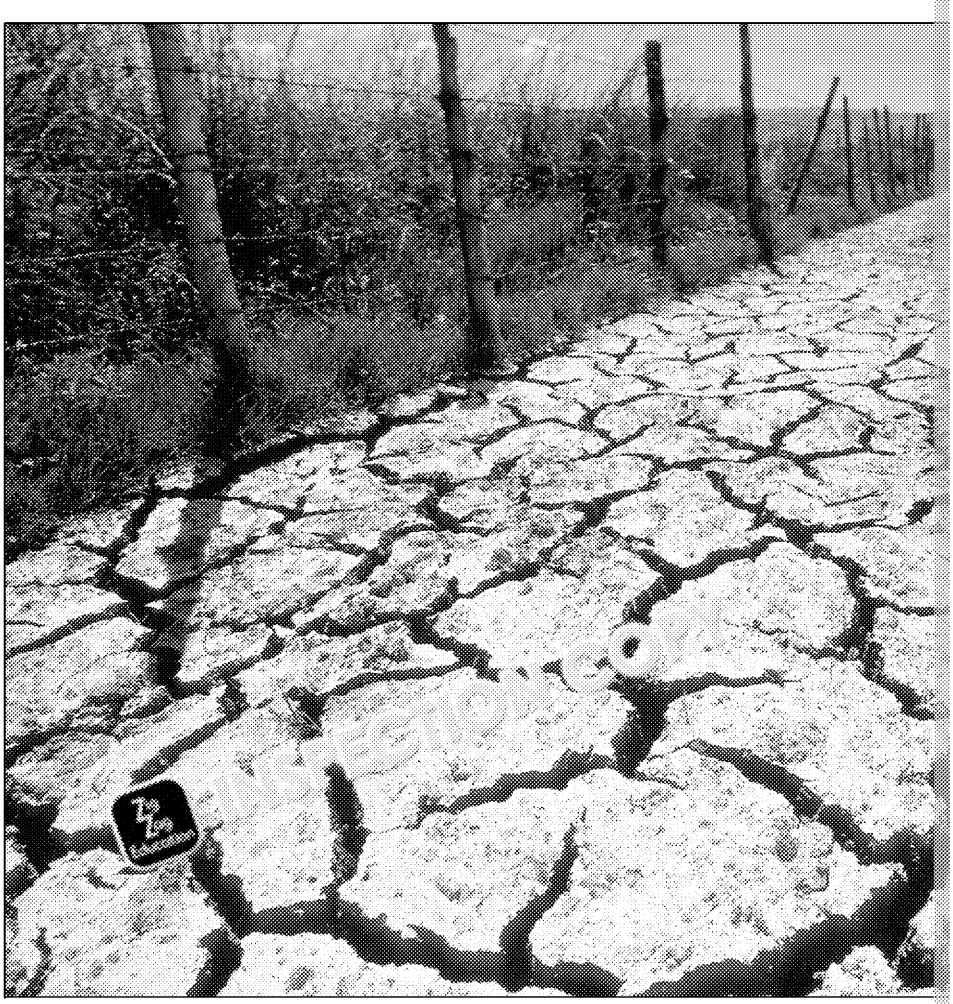

Figure 10 Soil affected by salinisation

4.3. To what extent does soil degradation, such as that shown in Figure 10, i
food production?

4.4. Assess the success of international agencies and NGOs in encouraging l
disease.

(*If you need more space, please continue your answer on a se*

4.5. 'Continued population growth will eventually cause the world to reach a
To what extent do you agree with this statement?

(*If you need more space, please continue your answer on a se*

You should only answer one question in Section C – choose from question 3, o

Q 5: Resource security

5.1. Explain the concept of a 'resource frontier'.

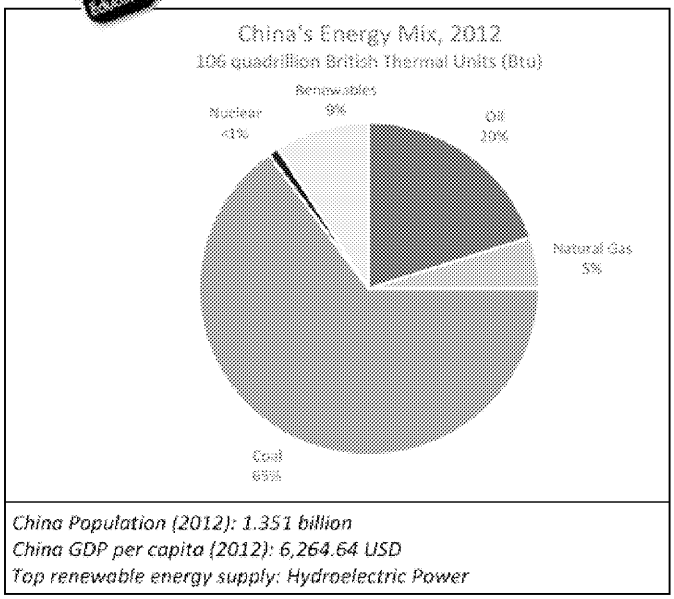

Figure 11: China Energy Mix, 2012

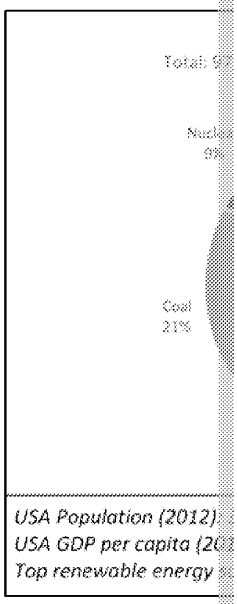

Figure 12: USA Ene

5.2. Using figures 11 and 12, analyse the differences in the energy mix of Ch

Figure 13 Urban reservoir

5.3. With reference to Figure 13 and your own knowledge, assess the effect increase water supply.

5.4. Assess the importance of physical geography in determining the energy

5.5. 'The production, trade and consumption of energy have serious enviro

To what extent do you agree with this statement?

(*If you need more space, please continue your answer on a*

Preview of Questions Ends Here

Answers: Paper D

1.1. Allow up to four points, with a point for each valid answer and additional mark
AO1 x 4

- Areas of the earth that are not controlled by any one nation
- These areas usually contain resources that global commons suggests belo
- Important for the protection of these areas so no one country exploits the
- The concept also promotes the idea of sustainable development, that the exploitation for now and for future generations

1.2. Students must compare the figures and analyse the different threats facing A
AO3 x 6

Level	Mark	Descripto
Level 1	(1–3 marks)	The student dem ons at simple analysis of the fig
Level 2	(4–6 mar)	Th de shows a good and thorough understan analysis is detailed.

Pe ns wers:

- e 1 shows that Antarctica has been subject to a rise in temperature si peninsula seems to be affected more significantly than other areas.
- This suggests that climate change could be affecting the levels of ice in A level rise and the Antarctic ecosystem.
- Figure 2 suggests that the overall trend of tourists visiting the region has 2000/01 to almost 45,000 in 2016/17.
- This increase in tourist numbers could have adverse effects on the area b through trampling and disturbing of breeding wildlife in the summer mon
- Figure 2 also suggests that the demand for Antarctic tourism is growing a tourists visiting the region each year is not known yet but it could cause s landscape.
- Figure 3 suggests that the overfishing of krill may be a problem for Antar harvested has decreased from its peak in the 1980s there appears to be a the early 2000s.
- Considering the reliance other species have on krill, the continued trend could cause extensive damage to the ecosystem of Antarctica in the futu
- All three figures suggest that Antarctica is facing a variety of threats that ways.

1.3. 2 marks can be awarded for AO1 if the student presents facts about, and show are traded worldwide and comprehension that this presents various challenge

4 marks can be awarded for AO2 if the student uses their facts and compreher challenges that the world trade of commodities can bring. Students may use a commodity they have studied to back up their points.

Level	Mark	Descripto
Level 1	(1–3 marks)	The student offe sic mprehension and know challenges w trade of commodities can brin ce d there are significant inaccuracies. A the analysis or evaluation is supported by use of lim
2	(4–6 marks)	The student offers clear comprehension and under challenges the world trade of commodities can brin Relevance and accuracy of information provided is this knowledge appropriately and offers some rele at analysis or evaluation that is supported by evide

Possible answers:

- Figure 4 shows how complicated the world trade of a commodity can be. Africa, Latin America and Asia and then traded all over the world, with th Europe.
- This demonstrates the opportunity of a product being made available all is made from cocoa beans.

- It also shows how some regions of the world trade the same product with Asia and vice versa, suggesting the ever complicated systems of world tra and then import the same product.
- The trade of commodities such as cocoa helps some countries to take pa that country to encourage economic growth.
- This in turn may help workers to gain new skills and, therefore, improve s
- Another opportunity offered by the world trade of a commodity may be developing and emerging countries to partake in fair trade.
- On the other hand, there are many challenges associated with the global barriers and access to markets.
- Increased competition can also create challenges – when one producer c producers may get squeezed out.
- The demand for commodities is high, particularly from developed countri workers are exploited or have to work in poor working conditions and th
- The demand can also lead to natural resource exploitation and further da
- Although world trade of commodities presents many opportunities there regarding exploitation of workers. Fair trade could be the solution to this, overall.

1.4. 10 marks can be awarded for AO1 if the student presents facts and comprehe globalisation.

10 marks can be awarded for AO2 if the student uses their facts and comprehe benefits of globalisation outweigh the costs.

Level	Mark	Descriptor
Level 1	(1–5 marks)	AO1: • The answer uses little geographic theory, and superficial. • No use of geographical terms. • Little evidence of comprehension. • No or restricted use of example material, whe
		AO2: • Investigation, connections and developments • Argument is unclear; points may be brief, bias structure. Answer is likely to be poorly writte question.
Level 2	(6–10 marks)	AO1: • Use of more complex theories may be inaccur information is correct. • Geographical terms used infrequently. • Comprehension is apparent but may be patch • Case study material is present, where approp superficial.
		AO2: • Investigation, connections and developments • Argument is apparent but may be poorly stru question.
Level 3	(11–15 marks)	AO1: • Reliable references to geographical theories; appropriate. • Geographical terms used often. • The answer demonstrates a good level of crit • Case study material is appropriate, specific an applicable.
		AO2: • Investigation, connections and developments • Argument is explicit, with a good balance of e conclusion. Answer is highly relevant to the q

Level	Mark	Descriptor
Level 4	(16–20 marks)	AO1: • Geographical theories and processes are appr… comprehensive and specific knowledge. • Frequent use of geographical terms. • Critical comprehension is self-evident from th… geographical theory and information. • Use of case study material is suitable, broad a… • Specific facts and figures are fully integrated a…
		AO2: • Investigation, connections and developments … • Argument is well wr… supported by the ev… a balance of … ts in order to reach a jus… creat… sophisticated and highly relevant.

Possible answers:

- Explanation … globalisation is the increasing interdependence of econom… … provides many benefits but also has many costs.
- … ssion of the positive and negative aspects of globalisation.
- Globalisation has enabled the economic growth of developing countries as t… processes which has enabled sufficient economic growth to allow the countr…
- Economic growth in developing countries has allowed societal development… living and quality of life for many people in developing countries.
- Globalisation has also enabled economic growth in developed countries, wi… the developed world and, therefore, benefiting from the profits made throu… developing strong service sectors and a knowledge-based economy, which c… growth.
- Globalisation has increased foreign direct investment in both developed and… infrastructure and aiding development all across the world.
- Globalisation has led to increased integration and improved geopolitical rela… people, goods and money have meant countries increasingly have a commo… therefore, more cooperative with other countries.
- The formation of a number of international trade entities has increased stab… investment patterns are unlikely to be disrupted by increased tariffs or quota…
- The formation of global governance organisations such as the United Nation… in certain countries such as through the Millennium Development Goals and…
- However, in many cases globalisation has increased inequality as it is largely… members of a society who are able to access the opportunities created from…
- Globalisation also creates a range of injustices for different people and plac… labour in developing countries and force the employees to work long hours, …
- Injustices are also being created as developed countries exploit the natural r… not have the technology to extract these resources themselves. In some cas… are held back from growth and development by developed countries, in ord… and natural resources to continue.
- Globalisation is causing conflicts in some instances as it is creating shortage…
- Civil conflict may arise as groups … developing countries feel richer nations a…
- Restricting trade to … our… through implementing sanctions or high tariffs…
- Globalisation is also causing significant environmental impact across the wor… …ific… environmental damage through resource extraction and industria… …, TNCs even locate in developing countries in order to take advantage o… environmental policies.
- Increased transportation of people and goods via planes and ships is also cre… contributing to global warming.
- Conclusion must draw on the benefits and the costs and assess whether the…
- Conclusion may suggest that both the benefits and costs of globalisation are… been effective in significantly reducing these costs. However, globalisation d… developing and developed countries and so the benefits may outweigh the c… remove the costs concentrated in the developing world.

2.1. Allow up to four points, with a point for each valid answer and additional mark
AO1 x 4

- An insider perspective on place means that a person may have a strong r
- Or they may be very familiar with a place or identify with it.
- An outsider perspective means that a person may not have visited that p
- Or they may not feel comfortable in that place and may feel 'out of place'
- Or they may be unfamiliar with the place, e.g. there may be a place for w

2.2. Student must show they are able to analyse and interpret the artistic represen
they believe the painting accurately portrays the character of the place.
AO3 x 6

Level	Mark	Descripto
Level 1	(1–3 marks)	The student demonstrat[illegible]ple analysis of the fi
Level 2	(4–6 marks)	The studen[illegible]s good and thorough understan[illegible] is detailed.

Possible answers:

- The painting reveals a sense of character and place meaning that is perso
[illegible]es which hold some emotional value to them; perhaps this scene is o
or is a scene the painter enacts with their own children. Although it is im
painted this picture, it can be reasonably assumed that this place has per
- The painting can be interpreted as a snapshot view into what life was like
This place could be a place that holds special meaning for many people li
come to enjoy themselves with friends and family.
- The painting can be used not only as an indicator of the lives of the peop
guide to the type of weather this place experienced as well as how devel
time.
- However, paintings are not entirely reliable, partly due to the tendency f
representation of a place rather than a realistic one.
- Furthermore, the accuracy of the painting is difficult to judge given the la
reason the painting was done, whether or not it was done for someone i

2.3. 2 marks can be awarded for AO1 if the student presents facts about, and show
quantitative means of understanding place.

4 marks can be awarded for AO2 if the student uses their facts and comprehen
quantitative data compared to other ways of understanding place.

Level	Mark	Descripto
Level 1	(1–3 marks)	The student offers basic comprehension and know[illegible] be used to study place. The answer provided is of [illegible] significant inaccuracies. Application of knowledge [illegible] is supported by use of limited evidence.
Level 2	(4–6 marks)	The student offers clear comprehension and under[illegible] can be used to study pl[illegible] the relevance of ea[illegible] information pro[illegible]ded is generally good. The stude[illegible] and of[illegible]e relevant connections. There is cle[illegible] is supported by evidence.

Possible answers:

- [illegible]erstanding that the different types of quantitative data as shown in F[illegible] place. Census data, such as that shown in Figure 6, can show a variety o
to grasp certain factors about the place. Other quantitative data such as
information about a place, e.g. how it may have changed over time throu
- Figure 6 can tell us which types of job the employed people of Bristol are
For example, the most common job category in Bristol is professional occ
proportion of Bristol population are in professional occupations than the
factors about the place can be interpreted, e.g. that Bristol has a high pro
and schools, and a strong economy.
- Discussion about criticisms of quantitative data. The census data shown
amount of information; it does not show the numbers who may be unem

different perspective on place. It also does not take into account the lived experiences of people in the place that could be found through qualitative data. Understanding that quantitative data must also be understood as subjective as researchers will have collected the data for their own purpose. Informants will also choose what answer they give in a census.

- Qualitative data, such as personal experience, photos, art, etc., offers a subjective view but it may also give a more accurate account of place.
- Overall evaluation of the relevance of quantitative data when studying place, whether it should not be used or whether it should be used in conjunction with qualitative data to get a true sense of place. Discussion around whether an understanding of place can ever be achieved through data.

2.4. 10 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, the socio-economic and cultural characteristics of the place, as well as the patterns of flows of resources, money and investment.

10 marks can be awarded for AO2 if the student uses their facts and comprehension to assess links between the flows of resources, money and investment and the socio-economic and cultural characteristics of that place. An evaluation should made of the reach of the impact of flows of resources, money and investment on the socio-economic and cultural characteristics of the place.

Level	Mark	Descriptor
Level 1	(1–5 marks)	AO1: • The answer uses little geographic theory, and information may be inaccurate or superficial. • No use of geographical terms. • Little evidence of comprehension. • No or restricted use of example material, where appropriate.
		AO2: • Investigation, connections and developments are absent. • Argument is unclear; points may be brief, biased or inaccurate, with no evidence of structure. Answer is likely to be poorly written and not always relevant to the question.
Level 2	(6–10 marks)	AO1: • Use of more complex theories may be inaccurate, but overall use of geographic information is correct. • Geographical terms used infrequently. • Comprehension is apparent but may be patchy. • Case study material is present, where appropriate, but may be brief, biased or superficial.
		AO2: • Investigation, connections and developments are present, but unclear. • Argument is apparent but may be poorly structured. Most of the answer is relevant to the question.
Level 3	(11–15 marks)	AO1: • Reliable references to geographical theories; the answer is likely to be detailed and appropriate. • Geographical terms used often. • The answer demonstrates a good level of critical comprehension. • Case study material is appropriate, specific and well linked to the argument, where applicable.
		AO2: • Investigation, connections and developments are developed. • Argument is explicit, with a good balance of evidence, clear structure and a solid conclusion. Answer is highly relevant to the question.

Level	Mark	Descriptor
Level 4	(16–20 marks)	AO1: • Geographical theories and processes are appropriately referred to, demonstrating comprehensive and specific knowledge. • Frequent use of geographical terms. • Critical comprehension is self-evident from the confident and appropriate use of geographical theory and information. • Use of case study material is suitable, broad and thorough, where applicable. • Specific facts and figures are fully integrated and support the overall argument.
		AO2: • Investigation, connections and developments are fully developed. • Argument is well written, supported by the evidence and clear in structure, and uses a balance of viewpoints in order to reach a justified conclusion. Conclusions are creative, sophisticated and highly relevant.

Possible answers:

- Discussion of the flows of resources, money and investment within the specific place. The answer will likely involve discussion of the role of MNCs within the place. This could involve the impact they have on unemployment figures, or the impact they have on consumption patterns and creating a Westernised or globalised culture.
- The flows of investment could also relate to the investment by national government. The level of investment is likely to have a significant impact on the social characteristics of the place, as government investment is largely responsible for the provision of good services such as healthcare and education, for example. Government investment is also designed to positively impact the economic characteristics of a place, with much investment designed to attract more people into the area and, therefore, instigate growth.
- The flows of resources are likely to contribute to the economic characteristics of the place. If there is good trade of resources both into and out of the place it is likely that economic activity will be high. A steady flow of resources in terms of energy resources will be a key determining factor of the level of economic activity with the place, as sufficient energy resources will be required in order to maintain and power economic growth.
- The answer should also involve discussion of other factors contributing to the socio-economic characteristics of the place. The other key factor other than flows of resources, money and investment is the flow of people. Flows of people into a place can be a valuable addition to the workforce; therefore, contributing to economic growth.
- International immigrants moving into the place will add cultural diversity, and the culture of that individual place is likely to involve the merging of a variety of different customs and traditions of people from across the world.
- Flows of people also impact on the social cohesion of the place, and a high level of people moving into a place may cause tension to arise between existing and new residents. Alternatively, ethnic enclaves may arise as different ethnic groups separate themselves from the rest of the community (not always through choice) and social segregation occurs.
- Flows of ideas, which in part come under the flow of people and investment, also contribute to the social and cultural characteristics of the place. As places become increasingly exposed to ideas from around the world through access to the Internet the characteristics of a place may come to change.
- Conclusion should evaluate the extent to which the socio-economic and cultural characteristics of a place are determined by the flows of resources, money and investment, as well as the extent to which the characteristics can be attributed to other factors. Students are likely to argue that it is a combination of factors, namely the flows of people and ideas as well as resources, investment and money, that contribute to the socio-economic and cultural characteristics of a place.

3.1. Allow up to four points, with an additional mark for each expanded point. These suggested points are not exhaustive. AO1 x 4

- A settlement on the outer boundaries of a city (1) / developed into a city on its own right (1).
- May have previously been a rural area or suburb (1).
- Significant amount of business occurs – for example, retail or office space rather than residential (1).
- Often close to amenities / transport links / main road (1).
- Typically has a high percentage of affluent people (1).

3.2. 6 marks for AO3 can be awarded where the student uses and assesses information provided in the figures to demonstrate the differing levels of pollution within cities around the world while inferring the reasons for these differences.

Level	Mark	Descriptor
Level 1	(1–3 marks)	The student provides a partial examination of the figures, with limited inference or success.
Level 2	(4–6 marks)	The student provides a successful and detailed examination of the figures; inferences are detailed and used with success.

Possible answers:

- The top 10 most polluted cities in 2017 are all in Africa and Asia.
- All of the most polluted cities are in countries that are developing rapidly, which could be the cause of the pollution due to increased numbers of factories, cars and people.
- Accra is the most polluted city, with a pollution index of 103.2, which contrasts significantly with the index score of 10.54 for the least polluted city (Wellington).
- The top 10 least polluted cities cover a range of countries across Europe, Canada and Australasia and New Zealand.
- All of the least polluted cities are found in developed countries. This may be because they are no longer industrialising and may have found other solutions to pollution problems.
- Although the tables do not indicate the size of the cities, the levels of pollution could also relate to the size and population of the cities. All the least polluted cities may be on average considerably smaller than the most polluted cities.

3.3. 4 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, the ways in which urban form and processes can affect the climate of cities including the different factors of climate that urban areas might affect.

5 marks can be awarded for AO2 if the student uses their facts and comprehension to assess the extent to which urban form and processes affect the climate of cities, considering the other factors that may play a role in this change.

Level	Mark	Descriptor
Level 1	(1–3 marks)	The student provides few facts about, and shows little comprehension of, how urban form and processes affect the climate of cities. The answer provided may neither respond to the question asked, nor be factually accurate. Analysis and supported statements are often missing.
Level 2	(4–6 marks)	The student provides good facts about, and shows good comprehension of, how urban form and processes affect the climate of cities. The student responds to the question asked, and is generally factually accurate. Analysis and supported statements are well articulated; some exemplar material is provided, where appropriate.
Level 3	(7–9 marks)	The student provides excellent facts about, and shows excellent comprehension of, how urban form and processes affect the climate of cities. The student responds to the question asked, and is factually accurate. Analysis and supported statements are well articulated, with precision; exemplar material, where applicable, is showcased.

Possible answers:

- Comprehension of different urban forms and activities that take place within urban areas.
- Comprehension of how the urban form may affect the climate of cities. How the high-rise buildings and density of buildings can affect the temperature and wind speed of urban areas.

- The materials used to build urban areas often have a lower albedo than rural areas, meaning that they absorb more of the heat. In addition, some high-rise buildings often reflect the heat down to the ground, heating the ground further. Industries and vehicles emit pollution that traps heat in the city. These factors work together to create the urban heat island effect.
- Urban areas also have good drainage systems to ensure run-off is cleared from the impermeable surfaces; the energy that would have been used to get rid of this water is instead used to heat the city further.
- The urban heat island affect, along with the amount of pollution, can create dense fog/smog in cities compared to rural areas. This is demonstrated in Figure 9, through the clear area of fog/smog around the high-rise buildings.
- The greater number of buildings, particularly high-rise buildings, in urban areas can slow down wind speed, although air moving between two tall buildings can increase in speed and create powerful gusts.
- Discussion about the other factors that may also affect the climate of urban areas, such as location, latitude, proximity to water.
- Evaluation must argue the extent to which urban forms and processes affect the climate of urban areas compared to the other factors.

3.4. 4 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, the socio-economic issues experienced in urban areas.

5 marks can be awarded for AO2 if the student uses their facts and comprehension to assess the link between socio-economic issues and the processes of urbanisation.

Level	Mark	Descriptor
Level 1	(1–3 marks)	The student provides few facts about, and shows little comprehension of, socio-economic issues arising due to urbanisation. The answer provided may neither respond to the question asked, nor be factually accurate. Analysis and supported statements are often missing.
Level 2	(4–6 marks)	The student provides good facts about, and shows good comprehension of, socio-economic issues arising due to urbanisation. The student responds to the question asked, and is generally factually accurate. Analysis and supported statements are well articulated; some exemplar material is provided, where appropriate.
Level 3	(7–9 marks)	The student provides excellent facts about, and shows excellent comprehension of, socio-economic issues arising due to urbanisation. The student responds to the question asked, and is factually accurate. Analysis and supported statements are well articulated, with precision; exemplar material, where applicable, is showcased.

Possible answers:

- Economic inequality and the issues that result, including social tension, unequal opportunities, poor standards of health and education in certain areas, etc.
- Social segregation and the issues that result, including hate crimes, disjointed and divided communities, prejudice, etc.
- Unequal patterns of social well-being, determined as people's lived experience of the urban area differs.
- Increased levels of poverty in the city, as many newcomers struggle to find jobs and, therefore, cannot afford safe accommodation in which to live.
- Increased levels of crime may result as high levels of unemployment mean people sometimes turn to crime in order to support themselves. The increase of people in the city also increases pressure on services, such as the police force, which limits police control over the city.
- Deprivation results as areas become overcrowded with people and the infrastructure and services simply cannot cope.
- Gentrification may result in low-income residents being forced from their neighbourhoods as wealthier residents move in and regenerate the area.
- Changes to cultures and traditions that result from the influx of people may not be welcomed by existing residents, who may feel the place is losing its character.
- Evaluation of the way different issues affect different social groups; for example, gentrification will affect low-income existing residents, while international migrants may be subject to prejudice.
- Evaluation of the way socio-economic issues can affect different parts of the same city in different ways and to different degrees of severity.
- Evaluation must include the student's own opinion of the impacts of deindustrialisation. The student can argue any viewpoint as long as their argument is balanced and well supported.

3.5. 10 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, both the opportunities and challenges that arise in the development of sustainable cities.

10 marks can be awarded for AO2 if the student uses their facts and comprehension to assess the extent to which the challenges outweigh the opportunities, or vice versa, with judgement.

Level	Mark	Descriptor
Level 1	(1–5 marks)	AO1: • The answer uses little geographic theory, and information may be inaccurate or superficial. • No use of geographical terms. • Little evidence of comprehension. • No or restricted use of example material, where appropriate.
		AO2: • Investigation, connections and developments are absent. • Argument is unclear; points may be brief, biased or inaccurate, with no evidence of structure. Answer is likely to be poorly written and not always relevant to the question.
Level 2	(6–10 marks)	AO1: • Use of more complex theories may be inaccurate, but overall use of geographic information is correct. • Geographical terms used infrequently. • Comprehension is apparent but may be patchy. • Case study material is present, where appropriate, but may be brief, biased or superficial.
		AO2: • Investigation, connections and developments are present, but unclear. • Argument is apparent but may be poorly structured. Most of the answer is relevant to the question.
Level 3	(11–15 marks)	AO1: • Reliable references to geographical theories; the answer is likely to be detailed and appropriate. • Geographical terms used often. • The answer demonstrates a good level of critical comprehension. • Case study material is appropriate, specific and well linked to the argument, where applicable.
		AO2: • Investigation, connections and developments are developed. • Argument is explicit, with a good balance of evidence, clear structure and a solid conclusion. Answer is highly relevant to the question.
Level 4	(16–20 marks)	AO1: • Geographical theories and processes are appropriately referred to, demonstrating comprehensive and specific knowledge. • Frequent use of geographical terms. • Critical comprehension is self-evident from the confident and appropriate use of geographical theory and information. • Use of case study material is suitable, broad and thorough, where applicable. • Specific facts and figures are fully integrated and support the overall argument.
		AO2: • Investigation, connections and developments are fully developed. • Argument is well written, supported by the evidence and clear in structure, and uses a balance of viewpoints in order to reach a justified conclusion. Conclusions are creative, sophisticated and highly relevant.

Possible answers:

- Discussion of challenges that arise in relation to developing sustainable cities, including cost, need for accommodating a growing population, to minimise the use of greenfield sites, consumer demand for cheap food and products which often come from further afield, etc.
- Discussion of the opportunities that are presented in creating more sustainable cities, to include utilising local land and farmers in providing food to the urban population, using renewable power supplies within the city to generate energy, improving recycling systems, reducing waste, improving public transport, using SUDS to reduce the risk of urban flooding, integrating nature into the urban environment, etc.
- Strategies of managing the challenges posed, and the effectiveness of these strategies.
- Students should use case studies and other forms of evidence to support their arguments.
- Consideration of cost, public support and other measures of viability and feasibility.
- Reference to how increasing urbanisation will serve to exacerbate the challenges, or perhaps increase the opportunities.
- Evaluation of the statement should be clear, with students giving a clear opinion on whether they believe the challenges involved with developing sustainable urban areas outweigh the opportunities. Students may choose to argue that while many issues are not preventable, they can be minimalised or reduced. Discussion of the limiting factors, such as cost or public support for a strategy, may feature in the student's evaluation.

4.1. Allow up to four points, with an additional mark for each expanded point. These suggested points are not exhaustive. AO1 x 4

- The ideal balance between population size and the available resources (1).
- Largest population size possible while living standards are optimal (1).
- Resources are not wasted (occurs with underpopulation) (1).
- Resources are not limited (occurs with overpopulation) (1).

4.2. 6 marks for AO3 can be awarded where the student uses and assesses information provided in the figures to demonstrate how patterns in ecological footprint have changed over time and between countries.

Level	Mark	Descriptor
Level 1	(1–3 marks)	The student provides a partial examination of the figures, with limited inference or success.
Level 2	(4–6 marks)	The student provides a successful and detailed examination of the figures; inferences are detailed and used with success.

Possible answers:

- Both figures 10 and 11 demonstrate how the ecological footprints of both USA and Ghana have increased over time.
- Since the 1960s the USA has been operating over its biocapacity, with its ecological footprint increasing from 1.5 billion global hectares to around 2.7 billion global hectares in 2012. This increase in ecological footprint has meant that the USA's ecological deficiency has increased since the 1960s. The biocapacity has stayed fairly steady, the ecological footprint has fluctuated over time.
- Ghana's ecological footprint has also increased since the 1960s from 9 million global hectares to 50 million global hectares. Although the scale of Ghana's ecological footprint is not as great as the USA's, the rate of change is greater. This may indicate Ghana's changing economic and development status over time. As the country has industrialised and become richer more resources have been used.
- From the 1960s until the late 1990s Ghana was operating in ecological reserve, meaning that they had more resources than they were using. This may have been because the population was smaller and there were fewer developed areas.
- Ghana is now moving quite far away from its biocapacity whereas the USA has seen recent fluctuations in reducing its ecological footprint. This may be for a number of reasons, such as the population decreasing or the rise of sustainable and renewable energy.

4.3. 4 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, the ways in which different diseases are more common in areas of particular climates.

5 marks can be awarded for AO2 if the student uses their facts and comprehension to assess the extent to which climate affects disease distribution and prevalence with the consideration of the other influential factors.

Level	Mark	Descriptor
Level 1	(1–3 marks)	The student provides few facts about, and shows little comprehension of, how climate change affects the distribution and prevalence of disease. The answer provided may neither respond to the question asked, nor be factually accurate. Analysis and supported statements are often missing.
Level 2	(4–6 marks)	The student provides good facts about, and shows good comprehension of, how climate change affects the distribution and prevalence of disease. The student responds to the question asked, and is generally factually accurate. Analysis and supported statements are well articulated; some exemplar material is provided, where appropriate.
Level 3	(7–9 marks)	The student provides excellent facts about, and shows excellent comprehension of, how climate change affects the distribution and prevalence of disease. The student responds to the question asked, and is factually accurate. Analysis and supported statements are well articulated, with precision; exemplar material, where applicable, is showcased.

Possible answers:

- Understanding of how climate can affect the distribution and incidence of disease. As shown in Figure 12, mosquito-borne diseases such as malaria are mainly found in warm, tropical environments such as sub-Saharan Africa, South America and parts of Asia. The mosquitoes that carry these diseases thrive in warm climates and near stagnant water sources.
- Areas with a colder climate do not experience these types of disease but others may be more prevalent, such as hypothermia, flu or mental health problems such as seasonal affective disorder (SAD).
- Rainier climates can also be the cause of some diseases. Where an area experiences extreme rainfall, and consequently flooding, they may also experience certain water-borne disease such as cholera and typhoid that can develop in the stagnant water.

- Discussion of the other factors that result in disease distribution and prevalence. Other physical factors also play a role, such as topography, altitude and drainage. For example, poor drainage could also be a reason that cholera develops.
- Social, political and economic factors may also play a role in disease distribution and prevalence. For example, Figure 12 shows that some areas of the world which no longer have malaria were formerly malarious. The reasons for this could be the changes in temperature of the earth over millennia but it could also relate to improvements in healthcare, sanitation and education.
- Prevalence of other diseases such as cholera may relate to the economic status of the country. Poorer countries, or those who are suffering from natural disaster or war, may not have the infrastructure or money to deal with a cholera outbreak. Yemen is currently suffering a severe cholera outbreak which can be attributed to the ongoing conflict in the country.
- Assessment of the extent to which climate affects distribution and prevalence of disease and the other factors involved.

4.4. 4 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, the strategies used to ensure food security.

5 marks can be awarded for AO2 if the student uses their facts and comprehension to assess how successful these strategies have been / are for ensuring food security.

Level	Mark	Descriptor
Level 1	(1–3 marks)	The student provides few facts about, and shows little comprehension of, the strategies used to ensure food security. The answer provided may neither respond to the question asked, nor be factually accurate. Analysis and supported statements are often missing.
Level 2	(4–6 marks)	The student provides good facts about, and shows good comprehension of, the strategies used to ensure food security. The student responds to the question asked, and is generally factually accurate. Analysis and supported statements are well articulated; some exemplar material is provided, where appropriate.
Level 3	(7–9 marks)	The student provides excellent facts about, and shows excellent comprehension of, the strategies used to ensure food security. The student responds to the question asked, and is factually accurate. Analysis and supported statements are well articulated, with precision; exemplar material, where applicable, is showcased.

Possible answers:

- Brief explanation of the reasons strategies are needed to ensure food security. Food is not evenly distributed around the world and the world population is continuing to grow. We are unsure about the future of food security and how globalisation and climate change may affect it.
- There are various views on the future of food security making it an ever pressing issue and, therefore, strategies used to ensure food security can be thought of as highly important.
- Explanation of different strategies used to increase food security, such as increasing food production, improving strategies of handling and conserving food after harvesting, and improving land distribution. Students may choose specific examples to draw upon.
- Methods for improving food production include Rwanda's Land Husbandry, Water Harvesting and Hillside Irrigation Project. These projects have helped to increase productivity of small-scale farmers as well as improving access to nutritional food. Estimates suggest these projects have benefited 92,000 people in 30 months.
- Improving practices after harvest has also increased the yields of farmers in countries such as Uganda and Burkina Faso through education on different strategies to use to ensure maximum production and profit.
- Distributing land more effectively is another strategy that has helped to ensure food security for all. This can be achieved through land colonisation, which involves reclaiming unused land for agricultural use by landless farmers. It can also be achieved through land reform, where land is either bought or seized from rich private landlords and divided into smaller farms for use by landless farmers.
- All strategies have different goals and all can be deemed successful. The strategies all highlight the potential need for more strategies to ensure food security in the future.

4.5. 10 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, the factors that influence health, mortality and morbidity within a country.

10 marks can be awarded for AO2 if the student uses their facts and comprehension to assess the level of impact economic and social development have on patterns of health, mortality and morbidity within a country and how other factors may also determine these patterns.

Level	Mark	Descriptor
Level 1	(1–5 marks)	AO1: • The answer uses little geographic theory, and information may be inaccurate or superficial. • No use of geographical terms. • Little evidence of comprehension. • No or restricted use of example material, where appropriate.
		AO2: • Investigation, connections and developments are absent. • Argument is unclear; points may be brief, biased or inaccurate, with no evidence of structure. Answer is likely to be poorly written and not always relevant to the question.
Level 2	(6–10 marks)	AO1: • Use of more complex theories may be inaccurate, but overall use of geographic information is correct. • Geographical terms used infrequently. • Comprehension is apparent but may be patchy. • Case study material is present, where appropriate, but may be brief, biased or superficial.
		AO2: • Investigation, connections and developments are present, but unclear. • Argument is apparent but may be poorly structured. Most of the answer is relevant to the question.
Level 3	(11–15 marks)	AO1: • Reliable references to geographical theories; the answer is likely to be detailed and appropriate. • Geographical terms used often. • The answer demonstrates a good level of critical comprehension. • Case study material is appropriate, specific and well linked to the argument, where applicable.
		AO2: • Investigation, connections and developments are developed. • Argument is explicit, with a good balance of evidence, clear structure and a solid conclusion. Answer is highly relevant to the question.
Level 4	(16–20 marks)	AO1: • Geographical theories and processes are appropriately referred to, demonstrating comprehensive and specific knowledge. • Frequent use of geographical terms. • Critical comprehension is self-evident from the confident and appropriate use of geographical theory and information. • Use of case study material is suitable, broad and thorough, where applicable. • Specific facts and figures are fully integrated and support the overall argument.
		AO2: • Investigation, connections and developments are fully developed. • Argument is well written, supported by the evidence and clear in structure, and uses a balance of viewpoints in order to reach a justified conclusion. Conclusions are creative, sophisticated and highly relevant.

Possible answers:

- Understanding of the ways in which economic and social development determine patterns of health, mortality and morbidity within a country. Understanding that development involves the improvement of healthcare services and infrastructure for sewage and water supply.
- Economic and social development also implies better education of the population about health, hygiene and sanitation along with advances in medical technology.

- Economic and social development also leads to improved food security, reducing famine and illnesses related to malnutrition.
- Improved quality of housing can reduce sanitation and overcrowding, helping to stop the spread of diseases.
- The idea that economic and social development changes patterns of health, mortality and morbidity is supported by the theories behind the epidemiological transition.
- The diseases and illnesses that challenge socio-economically developed countries vary from those faced by developed countries, and infectious diseases have historically been the biggest problem for developing countries. As development continues, the incidence of infectious diseases has been decreasing.
- Lowest levels of mortality and morbidity are in the most developed countries, where the population is largely in good health.
- With greater socio-economic development there is greater control of other external factors such as the environmental influences.
- On the other hand, environmental variables also influence health, mortality and morbidity. For example, certain diseases are more prevalent in certain climates. Malaria thrives in warmer tropical climates whereas mental health problems such as seasonal affective disorder (SAD) are more likely to occur in colder climates when hours of daylight decrease.
- Health issues such as hay fever and asthma are not governed by socio-economic development, but mainly by climate and air quality.
- Diseases such as Alzheimer's and heart disease also have links to levels of certain chemicals in water.
- Other diseases are impacted by the drainage and topography of an area. For example, diarrhoeal disease, respiratory infections, hepatitis A, typhoid fever and leptospirosis are most common in poorly drained areas following a flood. Floods can also contaminate freshwater supplies, causing disease.
- Water quality can also impact on the incidence of disease due to the presence of parasites and different levels of chemicals.
- Conclusion that identifies the extent to which the student agrees with the statement, weighing up the arguments both for and against. While environmental factors are significant, socio-economic development can improve the management of and threat posed by the environmental factors, and so it is a key influencing factor.

5.1. Allow up to four points, with an additional mark for each expanded point. These suggested points are not exhaustive. AO1 x 4

- Geological – where the mineral/ore is located (1).
- Physical location – remoteness / difficulty in extracting (1).
- Quality of the mineral/ore (concentration) (1).
- Economic viability (if scarce, then mineral might be extracted from more difficult locations) (1).
- Technology – as technology advances / new techniques of recovery are developed, minerals can be extracted from more challenging sites (1).

5.2. 6 marks for AO3 can be awarded where the student uses and assesses information provided in the figures to demonstrate understanding of how copper exports and imports have changed over time.

Level	Mark	Descriptor
Level 1	(1–3 marks)	The student provides a partial examination of the figures, with limited inference or success.
Level 2	(4–6 marks)	The student provides a successful and detailed examination of the figures; inferences are detailed and used with success.

Possible answers:

- In 1962, exports in copper ores were fairly evenly distributed around the world. Asia, North and South America all exported between 22 and 28% of the total exports of that year.
- Oceania, Africa and Europe all also exported between 5.5 and 10%. This suggests that reserves of copper were fairly evenly spread around the world and that it was economically viable to export copper from many places.
- By 2015, the distribution of copper ore exports looked very different. Over 50% of the total exports came from South America. Both Asia and North America reduced their exports, to 18% and 17% of the total exported, respectively.
- Africa went from exporting 10% of total copper ore exports in 1962 to exporting just 0.84% of total copper ore exports in 2015. The reason for this drop could be that reserves became depleted in Africa or that South Asia produced the best priced copper so Africa could no longer compete.
- The copper ore imports have also changed over time. In 1962, only North America and Europe imported copper, with Europe importing 76% of the total imported. This could be because copper was being used for certain technological developments happening in Europe and North America, or that the other continents used their own reserves.
- The main importer of copper ore in 2015 was Asia, which imported 78% of the total imported. This switch in imports from Europe to Asia suggests a shift as industry and manufacturing has moved from Europe to Asia.
- The second biggest importer in 2015 is Europe. All the other continents import copper ore, but only a small percentage of the total imported.
- North America has gone from importing 24% of the total imports to only 1.2%.

5.3. 4 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, the variety of strategies that are used to increase energy supply.

5 marks can be awarded for AO2 if the student uses their facts and comprehension to assess the implications of the different strategies and how they vary.

Level	Mark	Descriptor
Level 1	(1–3 marks)	The student provides few facts about, and shows little comprehension of, the different strategies used to increase energy supply. The answer provided may neither respond to the question asked, nor be factually accurate. Analysis and supported statements are often missing.
Level 2	(4–6 marks)	The student provides good facts about, and shows good comprehension of, the different strategies used to increase energy supply. The student responds to the question asked, and is generally factually accurate. Analysis and supported statements are well articulated; some exemplar material is provided, where appropriate.
Level 3	(7–9 marks)	The student provides excellent facts about, and shows excellent comprehension of, the different strategies used to increase energy supply. The student responds to the question asked, and is factually accurate. Analysis and supported statements are well articulated, with precision; exemplar material, where applicable, is showcased.

Possible answers:

- Understanding of the different strategies used to increase energy supply, such as explorations for more oil and gas, an increase in the use of nuclear power and the development of renewable energies.
- Understanding that, despite oil and gas being finite resources and reserves running out, the advancement of technologies has meant more reserves have been found and easier extraction can take place.
- Nuclear power is also a popular option as it produces little carbon dioxide and lasts for a long time.
- Renewables are becoming a more viable option as technology advances; however, they are yet to become as popular as fossil fuels or nuclear energy.
- Understanding of the role of geopolitics in the chosen strategies to increase energy supplies. This is demonstrated by Figure 15, which shows two different routes that countries can take to meet the demand for energy.
- Discussion of the implications of the policies set out by France and the USA. France declaring that they will no longer grant licences for new oil and gas explorations suggests a significant move towards clean energy futures. Not only are France taking into account that more energy will be needed in the future, but they are considering what type of energy is best for the environment and will help to reduce the impacts of climate change.
- The increase in nuclear energy, however, has different sorts of environmental implications. For example, it produces nuclear waste which has significant health and environmental risks if not managed correctly. However, the management of the waste itself is a difficult process due to the nuclear waste staying radioactive for thousands of years.
- The Fukushima disaster after the Japanese earthquake in 2011 is an example of the dangers and implications of increasing the use of nuclear power.
- The USA's move towards further gas and oil explorations will increase energy supply quickly and efficiently but it will also increase the damage fossil fuel energy production is already having on the environment. It may add to climate change through the increased release of CO_2. The process of drilling for oil can also have significant impacts on the local ecosystems and habitats. The 2010 oil spill in the Gulf of Mexico is an example of where drilling for oil has led to significant damage to the environment.
- Discussion about which forms of energy supply strategy may have the best or worst implications for the future of the planet.

5.4. 4 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, the environmental impacts of water supply schemes.

5 marks can be awarded for AO2 if the student uses their facts and comprehension to assess the extent water supply schemes negatively impact the environment.

Level	Mark	Descriptor
Level 1	(1–3 marks)	The student provides few facts about, and shows little comprehension of, the environmental impacts of water supply schemes. The answer provided may neither respond to the question asked, nor be factually accurate. Analysis and supported statements are often missing.
Level 2	(4–6 marks)	The student provides good facts about, and shows good comprehension of, the environmental impacts of water supply schemes. The student responds to the question asked, and is generally factually accurate. Analysis and supported statements are well articulated; some exemplar material is provided, where appropriate.
Level 3	(7–9 marks)	The student provides excellent facts about, and shows excellent comprehension of, the environmental impacts of water supply schemes. The student responds to the question asked, and is factually accurate. Analysis and supported statements are well articulated, with precision; exemplar material, where applicable, is showcased.

Possible answers:

- Understanding that water supply schemes are needed for areas that suffer from water shortages or water stress. The demand for access to water is growing as the world population grows, putting more pressure on water supply. Water supply schemes are one way of meeting these demands.
- Understanding of how water supply schemes are processes from sourcing to supplying the water for consumption. There are a variety of types of water supply schemes. Reservoirs can be built in order to store water from nearby rivers or rainfall. Water transfer schemes transfer water from a catchment area where there is a surplus supply to a catchment where there is a deficit. The water is transferred through pipes, by canal or through river diversions. Desalinisation, taking the salt out of seawater, is another way that water can be supplied to areas experiencing water stress.
- Discussion of the environmental impacts of these water supply schemes. Answer may draw on a specific case study of a water supply scheme that the student has studied.

- Reservoirs involve the process of building a dam, which changes the hydrology of the area. This can change the sediment flows downstream. It also affects the ecosystem of the area by affecting the habitats of wildlife and impacting on the movement of wildlife downstream. In some cases dams prohibit the flooding of land that should be flooded.
- Water transfer schemes can also be very disruptive to the environment. River diversions and the building of pipelines can have significant ecological consequences.
- The process of desalinisation is not only costly but releases greenhouse gases into the atmosphere, contributing to global warming.
- On the other hand, increase in population and increase in demand for water is causing an increase in water stress. Climate change is also changing climate patterns and causing further water stress. Water stress can have negative impacts on the environment as it can damage important ecosystems. It is a question of weighing up whether the environmental consequences of water stress are worse than those of the water supply schemes.

5.5. 10 marks can be awarded for AO1 if the student presents facts about, and shows comprehension of, the perspectives on the future of resource security.

10 marks can be awarded for AO2 if the student uses their facts and comprehension to assess how far they agree with the idea that resource security will be more uncertain in the future and the likelihood of no one having resource security.

Level	Mark	Descriptor
Level 1	(1–5 marks)	AO1: • The answer uses little geographic theory, and information may be inaccurate or superficial. • No use of geographical terms. • Little evidence of comprehension. • No or restricted use of example material, where appropriate.
		AO2: • Investigation, connections and developments are absent. • Argument is unclear; points may be brief, biased or inaccurate, with no evidence of structure. Answer is likely to be poorly written and not always relevant to the question.
Level 2	(6–10 marks)	AO1: • Use of more complex theories may be inaccurate, but overall use of geographic information is correct. • Geographical terms used infrequently. • Comprehension is apparent but may be patchy. • Case study material is present, where appropriate, but may be brief, biased or superficial.
		AO2: • Investigation, connections and developments are present, but unclear. • Argument is apparent but may be poorly structured. Most of the answer is relevant to the question.
Level 3	(11–15 marks)	AO1: • Reliable references to geographical theories; the answer is likely to be detailed and appropriate. • Geographical terms used often. • The answer demonstrates a good level of critical comprehension. • Case study material is appropriate, specific and well linked to the argument, where applicable.
		AO2: • Investigation, connections and developments are developed. • Argument is explicit, with a good balance of evidence, clear structure and a solid conclusion. Answer is highly relevant to the question.

Level	Mark	Descriptor
Level 4	(16–20 marks)	AO1: • Geographical theories and processes are appropriately referred to, demonstrating comprehensive and specific knowledge. • Frequent use of geographical terms. • Critical comprehension is self-evident from the confident and appropriate use of geographical theory and information. • Use of case study material is suitable, broad and thorough, where applicable. • Specific facts and figures are fully integrated and support the overall argument.
		AO2: • Investigation, connections and developments are fully developed. • Argument is well written, supported by the evidence and clear in structure, and uses a balance of viewpoints in order to reach a justified conclusion. Conclusions are creative, sophisticated and highly relevant.

Possible answers:

- Understanding that there are different perspectives on the future of the world's resources and various factors that affect it. Understanding that resource security means that there are enough resources to meet the demands. Resources understood as energy, water and minerals.
- Discussion of the reasons why this statement is true. Resource security is increasingly uncertain as the population of the world continues to grow rapidly, particularly in emerging and developing countries. As the population grows so does the demand for more resources. This is particularly true in emerging countries – as their population becomes wealthier the middle class population grows and the demand for resources increases.
- Climate change is another reason why the future of resource security is increasingly uncertain. There is uncertainty about the exact implications of climate change but it is known that it will change weather and climate patterns, which could particularly affect water supplies. Freshwater supplies may also be affected by the rise in sea level as seawater floods freshwater systems.
- Another reason why the future of resource security is so uncertain and resource security is affected is due to the popularity of finite resources for energy and mineral supplies. Fossil fuels are all finite and as demand increases the reserves decrease. Both developed and developing countries depend on finite resources to meet their demands. There will be a point at which the world runs out of these resources.
- For these reasons, it is possible that there will be a point in the future when no one has resource security. Climate change and changing population are likely to affect everyone.
- Another factor is geopolitics. It is difficult to know the effects global political relationships could have on the future of resource security. On one hand, it could be positive, as global agreements could encourage countries to reduce consumption of resources, but on the other hand, tense relations around the globe could hinder the distribution and trade of important resources.
- Discussion of the reasons why this statement may not be true. There are potential energy alternatives that may be harnessed as technology advances in the future. For example, hydrogen could be used as an energy form, renewable energy technologies could become more effective and more popular. Already many countries use renewable technologies to provide some of their energy but this may become a more popular alternative as fossil fuels begin to run out. Technological advances may also allow for further exploration of fossil fuels in more remote places. Technology may also help to increase water supply if the process of desalinisation becomes cheaper.
- Increasingly recycling of minerals and water has meant there is less demand for new explorations and extraction. This trend of recycling may continue into the future as the cost of recycling becomes cheaper than the cost of extraction. However, this demand could increase due to the increasing population.
- The future may bring resource insecurity to some but it is unlikely that everyone will experience resource insecurity. It is likely that richer and more developed countries will invest more in the technological advancements and resource alternatives to ensure that they do not experience resource insecurity. Unfortunately, developing countries are more likely to experience worse resource insecurity as population growth and climate change will also affect them the most.

Preview of Answers Ends Here