
GCSE GEOGRAPHY

PAPER 2 CHALLENGES IN THE HUMAN ENVIRONMENT

Mark scheme

8035/2

V1.0

Additional specimen

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 2 with a small amount of level 3 material it would be placed in level 2 but be awarded a mark near the top of the level because of the level 3 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

Assessment of spelling, punctuation, grammar and use of specialist terminology (SPaG)

Accuracy of spelling, punctuation, grammar and the use of specialist terminology will be assessed via the indicated 9 mark questions. In each of these questions, three marks are allocated for SPaG as follows:

- **High performance** – 3 marks
- **Intermediate performance** – 2 marks
- **Threshold performance** – 1 mark

Qu	Part	Marking guidance	Total marks
01	1	<p>One mark for the correct answer</p> <p>A city with more than ten million inhabitants</p> <p>AO1 – 1 mark</p>	1
01	2	<p>One mark for each correct word or number.</p> <p>The greatest increase in the number of megacities is shown in Southern Asia. There are no new megacities in half of the continents on the 2030 map. The continent of Africa shows a 100% growth in number of megacities between 2015 and 2030.</p> <p>AO4 – 3 marks</p>	3
01	3	<p>The question focuses on the pattern shown by the pie chart, which is quite distinct.</p> <p>One mark for an initial overall descriptive comment, eg</p> <ul style="list-style-type: none"> • Food is clearly the item on which the most is spent (1) • Food accounts for over 60%/nearly 2/3 of the household spending (1) • Two items, food and transport, are nearly 75% of the total spending (1) <p>Second mark for adding further descriptive clarity of the pattern, eg</p> <ul style="list-style-type: none"> • All other spending combined excluding transport is approximately 25% (1) • In contrast all the other named items are less than 5% (1) • Each of the other named items is between 1 and 4% with rent clearly the smallest. (1) <p>No credit for listing items even if with percentage figures.</p> <p>AO4 – 2 marks</p>	2
01	4	<p>Must be visible in the photograph and reasonably considered to present a positive possibility.</p> <p>One mark for the initial observation or statement of opportunity, eg</p> <ul style="list-style-type: none"> • They can collect rubbish for sale (1) • There will be jobs operating the machinery/tractors (1) • They can salvage material that has been thrown away (1) <p>Second mark for developing the idea to suggest why this is an opportunity, eg</p> <ul style="list-style-type: none"> • They can collect rubbish for sale (1); which provides informal employment suited to unskilled migrants in squatter settlements (d) (1) • There will be jobs operating the machinery/tractors (1); when skilled or formal jobs will be rare in poorer cities (d) (1) • They can salvage material that has been thrown away (1); some of which may be able to be re-sold so money can be earned (d) (1) <p>AO3 – 2 marks</p>	2

01	5	Level		Marks		Description		6
		3 (Detailed)		5-6		AO2 – Shows detailed understanding of the relationship between service provision and population in the context of a named LIC/NEE city AO3 – Demonstrates thorough application of knowledge and understanding to offer judgement as to the scale of the challenge faced in providing services		
		2 (Clear)		3-4		AO2 – Shows clear understanding of the relationship between service provision and population in the context of a named LIC/NEE city AO3 – Demonstrates some application of knowledge and understanding by considering the difficulties faced in providing services		
		1 (Basic)		1-2		AO2 – Shows limited understanding of the relationship between service provision and population in the context of a LIC/NEE city AO3 – Demonstrates limited application of knowledge and understanding through basic consideration of the difficulties faced in providing services		
				0		No relevant content		
<p>Indicative content</p> <ul style="list-style-type: none"> • Level 3 responses will cover both the figure and a named city and provide a considered assessment of the challenge. • Level 2 responses will show reasonable understanding of the problem using the figure and a case study or more considered assessment for just the figure or case study. • Level 1 responses will show simple understanding of the problem using the figure and/or a named city. • Answers should make use of both figure 3 and a named city in a LIC/NEE. • The concept of services may include clean water, sanitation systems, energy, health, education and waste disposal. Students need not refer to all but should refer to more than one as the question is in the plural. Balance is not required. • Reference to figure 3 may be inferred even if not explicitly stated through comment on the informal economy, the implicit lack of education of those who work there, some of whom may be viewed as quite young, and the provision of adequate waste disposal. • The command ‘assess’ requires an appraisal of the scale of the task faced to provide physical/infrastructural services when cities in LICs/NEEs are growing so fast eg 600,000 growth per year in Lagos, when the resources available to meet demand are limited in poorer countries. Also poor existing provision of physical services such there is a challenging point from which to start eg in Lagos: only 40% of waste currently collected. • There is also challenge in providing access to social services eg only 55% of Rio’s population having access to a health clinic and only half of children 								

		<p>continue education past the age of 14.</p> <ul style="list-style-type: none"> Assessment may also cover ideas that historically many squatter settlements have improved themselves so that eg in Rocinha, Rio de Janiero, 90% of the housing is now brick built and with electricity, running water and sewerage and the favela has its own newspapers and radio station; so therefore the challenge is limited. Max top L2 if only named city or figure 3 covered. <p>AO2 = 3 marks, AO3 = 3 marks</p>	
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01	6	<p>One mark for the correct answer</p> <p>9 years</p> <p>AO4 – 1 mark</p>	1
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01	7	<table border="1"> <thead> <tr> <th>Level</th> <th>Marks</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>2 (Clear)</td> <td>3-4</td> <td>AO2 – Shows clear understanding of urban areas and processes and the concept of inequality AO3 – Uses Figure 4 effectively and offers development to evaluate the links between urban areas and processes and increased inequality</td> </tr> <tr> <td>1 (Basic)</td> <td>1-2</td> <td>AO2 – Shows limited understanding of urban areas and processes and the concept of inequality AO3 – use Figure 4 OR own knowledge to begin to interpret the links between urban areas and processes and increased inequality.</td> </tr> <tr> <td></td> <td>0</td> <td>No relevant content</td> </tr> </tbody> </table>	Level	Marks	Description	2 (Clear)	3-4	AO2 – Shows clear understanding of urban areas and processes and the concept of inequality AO3 – Uses Figure 4 effectively and offers development to evaluate the links between urban areas and processes and increased inequality	1 (Basic)	1-2	AO2 – Shows limited understanding of urban areas and processes and the concept of inequality AO3 – use Figure 4 OR own knowledge to begin to interpret the links between urban areas and processes and increased inequality.		0	No relevant content	4
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<p>Indicative content</p> <ul style="list-style-type: none"> Level 2 responses will apply geographical explanation in combination with the figure to present a reasoned explanation. Level 1 responses will be simplistic or simply assert a cause/effect link. Answers should make use of Figure 4 which may be inferred through reference to inner city/rural-urban fringe differences in health indicators. Development need not be through named places but use of a case study is likely to add clarity. Development may also be found in explanation of processes of change and widening gaps in cities. <p>Students may refer to a range of processes of change and may achieve full marks through full development of one:</p> <ul style="list-style-type: none"> De-industrialisation leading to inner city decline and subsequent deprivation leading to poorer health in inner areas, eg Aston amongst the most deprived areas in the UK. They may also comment that unhealthy behaviours such as smoking and drinking are more common in deprived areas so that life expectancies are lower. Urban sprawl and the growth of commuter settlements has gone hand in hand with this so that those on higher incomes are able to move out of the 															

		<p>centre; accessing better housing, employment and healthcare; leaving behind a more elderly and disadvantaged population, exacerbating the situation above.</p> <ul style="list-style-type: none"> • It would also be possible for students to argue that redevelopment and regeneration programmes in inner city areas eg Aston Pride in Birmingham have improved the situation so that health in many deprived areas is not as poor as it once was. <p>No credit for description of the inequalities in health in isolation.</p> <p>AO2 – 2 marks, AO3 – 2 marks</p>	
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01	8	<p>Credit one migration and consequent change only.</p> <p>One mark for a basic statement, eg</p> <ul style="list-style-type: none"> • Migration from other countries means some cities have areas dominated by the new population (1) • People from other countries bring shops and building styles that are different from what was there before (1) <p>Two marks for a developed idea, eg</p> <ul style="list-style-type: none"> • Migrants from other countries will often live near to each other for support (1) and so they will become the majority population in the area, meaning you are as likely to hear the migrant language spoken on the street as you are English (d) (1) • The clustering of many migrants from China in one place in London has led to the development of Chinatown (1) where many buildings are in Chinese style and there are a number of Chinese supermarkets (d) (1) <p>Max 1 mark if city not named or clearly able to be inferred or non-UK city. No credit if the migration is not international, at least implicitly or the change does not relate to character, at least in inference.</p> <p>AO1 – 2 marks</p>	2
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01	9	Level	Marks	Description	9
		3 (Detailed)	7-9	AO1 – Demonstrates detailed and precise knowledge of places and processes in urban environments. AO2 – Shows a thorough understanding of how an urban area in the UK provides opportunities. AO3 – Demonstrates thorough application of knowledge and understanding to make thorough judgement of the extent to which an urban area in the UK provides opportunities.	
		2 (Clear)	4-6	AO1 – Demonstrates reasonable knowledge of places and processes in urban environments. AO2 – Shows clear understanding of how an urban area in the UK provides opportunities. AO3 – Demonstrates reasonable application of knowledge and understanding to make partial judgement of the extent to which an urban area in the UK provides opportunities.	
		1 (Basic)	1-3	AO1 – Demonstrates limited knowledge of places and processes in urban environments. AO2 – Shows limited understanding of how an urban area in the UK provides opportunities. AO3 – Demonstrates limited application of knowledge and understanding to make limited judgement of the extent to which an urban area in the UK provides opportunities.	
			0	No relevant content	
<p>Indicative content</p> <ul style="list-style-type: none"> • Level 3 responses will provide a considered assessment with conclusion of the extent of opportunities, supported with precise knowledge. • Level 2 responses will give reasoned assessment supported with either precise or generically accurate knowledge. • Level 1 responses will show simple understanding of whether or not opportunities are created. • The question does not specify the nature of the opportunities so social, economic and environmental are all valid. Answers must refer to a named UK city. <p>The command ‘to what extent’ requires some evaluation and appraisal of the degree to which urban areas in the UK provide opportunities for people:</p> <ul style="list-style-type: none"> • In migration means that urban areas provide a cultural mix unlikely to be found outside cities and the consequent opportunity for wider experiences such as a range of foods and festivals e.g the ‘Golden Mile’ and Divali in Leicester. • Opportunities for recreation and entertainment are greater in cities such as museums, multiplex cinemas, concert venues and larger sporting facilities. Retail redevelopments also create large shopping and leisure complexes such as Liverpool One. • Cities will also have wider employment opportunities, notably in the service 					

	<p>sector such as tourism, retail and finance. Some cities have also targeted jobs in the creative industries, a growth industry for the UK, by creating large spaces in former industrial areas e.g The Titanic Quarter in Belfast, a centre for tourism and the film industry.</p> <ul style="list-style-type: none"> • Whilst manufacturing is a declining sector of the UK economy it is in cities that manufacturing jobs are largely located such Nissan on Tyneside. • Many cities are also increasing the range of environmental opportunities through urban greening through regenerating derelict areas and wasteland. • Negative arguments may be presented through considering that opportunities may not be widely available for example to those who lack the skills or levels of education for new industries. Growth and development is also more prevalent in some parts of cities and the old inner city areas and their inhabitants are still left behind. • Industrial decline has increased unemployment and therefore reduced income which then restricts access to opportunity. • Students may also comment on the very high cost of living in many cities, particularly those in the South of the UK which again restricts access to the opportunities to those on higher incomes. • Max level 2 if no evaluation. • Max Level 1 if no named city. <p>AO1 = 3 marks, AO2 = 3 marks, AO3 = 3 marks</p> <p>Spelling, punctuation and grammar (SPaG)</p> <p>High performance</p> <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 <p>Intermediate performance</p> <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 <p>Threshold performance</p> <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 meaning overall • Learners use a limited range of specialist terms as appropriate <p>No marks awarded</p> <ul style="list-style-type: none"> • The learner writes nothing • The learner’s response does not relate to the question <p>The learner’s achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning</p>	<p>3</p> <p>2</p> <p>1</p> <p>0</p>
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02	1	One mark for working. One mark for answer. Median = 6.9 AO4 – 2 marks	2
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02	2	Credit any reasonable suggestion. Students should make reference to figure 5 through using country name(s) and/or data provided, eg Bulgaria has a life satisfaction score of just 5.5 because it is poorer than the other countries (1) The more economically developed north-west European countries have better social care provision hence their higher scores (1) In Germany people are well off so can buy material goods giving them a higher score (1) AO3 – 1 mark	1
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02	3	Credit one reason only, there is no requirement to use the figure. They should show an awareness of how social measures, especially something as difficult to define as ‘life satisfaction’, can be misleading eg <ul style="list-style-type: none"> • Social measures are not as reliable as ‘hard’ data such as GNI (1) • ‘Life satisfaction’ is a difficult thing to measure and different people’s idea of satisfaction will vary (1) • The scale is only 0-10 so people may just score themselves in the middle (1) No credit for general answers regarding the unreliability of single measures other than social. AO2 = 1 mark	1
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<p>Indicative content</p> <ul style="list-style-type: none"> • Level 2 answers will provide reasoning that connects the processes of economic and social development. • Level 1 answers will provide basic reasons or merely assert the connections between economic and social development. 															

		<ul style="list-style-type: none"> • Answers should make use of Figure 6 which shows a process of industrialisation over time and corresponding urbanisation and income growth. • Students should also make it apparent that they are familiar with the Demographic Transition Model through reference to elements such as its stages, the corresponding population structures and countries that represent these stages. <p>Answers might draw straightforward connections such that the link between the two are clear:</p> <ul style="list-style-type: none"> • Stage 2 countries are at lower levels of economic development, LICs, with corresponding low incomes and a predominantly rural and agrarian society. • Stage 3 would generally be associated with NEEs who utilise the demographic dividend of their population structure in creating rapid industrialisation and income growth. • Stages 4/5 are HICs with well developed economies, a predominantly urban society and declining or static populations. • The explanation may take economic growth as the driver so that development means that populations become more focussed on material wealth so that they no longer wish to have expensive larger families. Also that development allows better health care reducing infant mortality and the imperative to replace children. • The opposite direction may be taken so that as the population growth slows and family size falls surplus income becomes available for investment and growth. • More sophisticated answers might argue that the two are co-dependent and that a causal link cannot easily be established. • Credit should also be given if the link is qualified suggesting that other factors such as the emancipation of women or state priorities might change populations without economic development e.g Cuba. <p>No credit for description of either the Demographic Transition Model or economic development in isolation.</p> <p>AO2 – 2 marks, AO3 – 2 marks</p>	
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02	5	<p>One mark for each correct identification.</p> <p>A dry season; failing crops; low food availability/malnutrition; high mortality rates</p> <p>AO4 – 2 marks</p>	2
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02	6	<p>Students need not make reference to figure 7 though to do so would be a valid approach provided answers move beyond it or adapt it in some way.</p> <p>Students should show an awareness of how microfinance operates for poorer</p>	1
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		<p>countries eg</p> <ul style="list-style-type: none"> • People are given small loans appropriate to their needs (1) • Microloans work by allowing subsistence farmers or those in the informal sector to escape poverty (1) • Loans are not a handout so people feel empowered (1) <p>No credit for repetition of Figure 7 only.</p> <p>AO1 – 1 mark</p>	
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02	7	<p>Credit one reason only.</p> <p>Students should clarify the link between politics or trade and importance on a global scale. The country should be named. Much will depend on the country selected but common themes may be previous colonisation or conflict leading to a reduced importance. Positive responses such as improved profile due to hosting major sporting events should also be credited.</p> <p>One mark for a basic statement or one which does not name a country, eg</p> <ul style="list-style-type: none"> • Many countries do not have a political voice as they are busy dealing with internal conflict (1) • As a previous colony India did not control its own economy (1) <p>Two marks for a developed idea which relates to the named country, eg</p> <ul style="list-style-type: none"> • Civil war and terrorism from Boko Haram in Nigeria (1) mean that it has a poor political reputation and some countries do not wish to deal with it (d) (1) • India has developed its own successful companies such as Tata Steel (1) so that it now owns and controls industries elsewhere in the world (d) (1) <p>Max 1 mark if country named is not LIC/NEE but comment still valid</p> <p>AO1 – 2 marks</p>	2
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02	8	Level	Marks	Description	6
		3 (Detailed)	5-6	<p>AO1 – Demonstrates detailed knowledge of industry in a named LIC/NEE</p> <p>AO2 – Shows thorough understanding of the links between stimulus and economic growth in the context of a named LIC/NEE.</p>	
		2 (Clear)	3-4	<p>AO1 – Demonstrates accurate knowledge of industry in a named LIC/NEE</p> <p>AO2 – Shows clear understanding of the links between stimulus and economic growth in the context of a named LIC/NEE.</p>	
		1 (Basic)	1-2	<p>AO1 – Demonstrates limited knowledge of industry in a LIC/NEE</p> <p>AO2 – Shows limited understanding of the links between stimulus and economic growth in the context of a LIC/NEE.</p>	
			0	No relevant content	

		<p>Indicative content</p> <ul style="list-style-type: none"> • Level 3 responses will provide specific detail of a named city and link the process of industry and economic growth well. • Level 2 responses will either provide specific detail of a named city with implicit links or a named city with generic detail with precise links. • Level 1 responses will give basic link(s) between industrial development and growth or merely assert the connection. • Answers should explain how economic growth and development are fostered by changes in industrial structure. • The fundamental benefit of manufacturing industry is that it allows value to be added to products, leading to greater gains. • Manufacturing industry creates jobs so that the employees pay taxes which the government can then invest in other services such as education which will promote economic development as more educated people are more qualified for better paid work. • Paid employment also means a greater number of people with money to spend and therefore the domestic market grows, creating a consumer society. • Industries themselves will also pay taxes to increase the government's receipts as above. • There is also a multiplier effect as industries stimulate growth in a supply chain of connected industries such as parts for electronic goods or cars. • As industries grow they will attract foreign companies, often TNCs, who will build further industries and infrastructure through Foreign Direct Investment (FDI), thus stimulating further growth. • Max top L1 if no named country or name country not LIC/NEE. <p>AO1 – 3 marks, AO2 – 3 marks</p>	
02	9	<p>One mark for working. One mark for answer.</p> <p>1.95%</p> <p>AO4 – 2 marks</p>	2

02	10	Level	Marks	Description	9
		3 (Detailed)	7-9	AO1 – Demonstrates detailed knowledge of strategy(ies) to resolve differences. AO2 – Shows a thorough understanding of the likely success of scheme(s) to reduce economic/social differences through balanced reference to advantages and disadvantages. AO3 – Demonstrates thorough application of knowledge and understanding in judging the likely success of one or more scheme(s) to redress differences with considered reference to the data provided.	
		2 (Clear)	4-6	AO1 – Demonstrates reasonable knowledge of strategy(ies) to resolve differences. AO2 – Shows clear understanding of the likely success of scheme(s) to reduce economic/social differences with some reference to advantages and disadvantages. AO3 – Demonstrates reasonable application of knowledge and understanding in judging the likely success of one or more scheme(s) to redress differences with sound reference to the data provided.	
		1 (Basic)	1-3	AO1 – Demonstrates limited knowledge of strategy(ies) to resolve differences. AO2 – Shows limited understanding of the likely success of scheme(s) to reduce economic/social differences with limited reference to advantages and disadvantages. AO3 – Demonstrates limited application of knowledge and understanding in judging the likely success of one or more scheme(s) to redress differences with passing reference to the data provided.	
			0	No relevant content	
<p>Indicative content</p> <ul style="list-style-type: none"> • Level 3 responses will provide specific detail of one or more named strategy with well-reasoned connections between (a) strategy(ies) and reduction of differences. • Level 2 responses will either provide specific detail of one or more named strategies with implicit links to reduction of inequality or well-reasoned arguments for (a) generic strategy(ies). • Level 1 responses will give basic link(s) between (a) strategy(ies) and reduction of differences or merely assert a connection. • Students are likely to have studied regional differences in the context of a N/S divide and the data provided is illustrative of that. • The north-south divide refers to the fact that in general many social and economic indicators tend to be more favourable in the southern part of the UK vs the northern part. Wages, house prices, health and educational attainment are all indicators that fit this broad trend. • The line is not straight or strictly latitudinal but follows a SW/NE trajectory 					

	<p>from the Severn to south of the Humber.</p> <p>Expect a range of strategies to be described, though only one is required and full marks may be gained for one scheme only. Common examples might be:</p> <ul style="list-style-type: none"> • The concept of the ‘Northern Powerhouse’. • Infrastructural such as HS2 aiming to connect the north and south. • Targeted investment such as Salford Media City to create ‘growth hubs’. • Investment in areas with multiple difficulties such as Assisted Areas scheme, European Regional Development Funds. • Devolving power such as Mayors in provincial cities. <p>Students may use the figure to aid their response: Data that supports the persistence of a N/S divide despite the efforts so far/the need for some redressing of the balance to reduce the divide:</p> <ul style="list-style-type: none"> • 5 of the top ten growth towns/cities are in the south. • 7 of the ten lowest growth towns/cities are in the north. • The 2 towns with a negative growth (ie fewer businesses in 2013 than 2004) are both in the north. <p>Data that supports the reduction of a N/S divide with efforts so far:</p> <ul style="list-style-type: none"> • 5 of the top ten growth towns/cities are in the north • The town/city with the highest growth rate of all is the furthest north in the UK • Thus the data may be used to either; comment that despite the efforts described the north remains disadvantaged and the economy is not responding to/unlikely to respond to stimulus or more businesses would be being created eg the continued decline of Grimsby; or that the growth rates in areas of previous industrial decline such as Middlesbrough and Warrington are evidence that such schemes work. • Knowledge and understanding may also be used to question the data in that it is percentage and not absolute numbers. It may also be queried that no mention is made of the types of businesses or their economic value. <p>Max top L1 if no named strategy</p> <p>No credit for mere description of the processes leading to the divide/regional differences or of the nature of the problems.</p> <p>AO1 – 3 marks, AO2 – 3 marks, AO3 – 3 marks</p>	
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03	1	<p>One mark for correct calculation.</p> <p>4.75</p> <p>AO4 – 1 mark</p>	1
03	2	<p>Students should make reference to Figure 9 through using country name(s) and/or data provided. They should show that they can apply knowledge and understanding in analysing the pattern shown by the map. Expect recognition of a global pattern of need/plenty being shown by unhappiness/happiness respectively.</p> <p>Figure 9 shows that people in poorer countries are unhappy because they cannot access resources. (1) Countries in Sub-Saharan Africa are generally very unhappy as people’s well-being will be harmed because they cannot access adequate food (1) as these areas may have significant percentages of their population undernourished/with a calorie deficit (1). Fundamental to health is a clean/adequate water supply as diseases due to dirty water or not enough to drink will clearly upset people (1) and the unhappy areas shown will have economic water scarcity eg Sub-Saharan Africa or physical water scarcity eg Middle East (1). Richer countries will have the means to purchase energy for personal use and industrial development (1) and this will increase the happiness of the population as they will have a good standard of living as a result (1) clearly seen in the scores > 7.3 in NW Europe (1).</p> <p>Max 1 mark if no reference to Fig 5</p> <p>Reserve 3rd mark (AO4) for clear and explicit reference to the map in Figure 5.</p> <p>No credit for answers which make no reference to social well-being.</p> <p>AO3 – 2 marks, AO4 – 1 mark</p>	3
03	3	<p>Credit one reason only.</p> <p>Students should clarify how changes in taste and demands create new markets and opportunities for producers and/or suppliers.</p> <p>One mark for a basic statement, eg</p> <ul style="list-style-type: none"> • Local farmers benefit as people want more food that is produced ‘at home’. (1) • Farmers abroad can sell their crops as the UK demands what they produce. (1) • Organic farmers have an opportunity to sell their produce as more people want it. (1) <p>Two marks for a developed idea, eg</p> <ul style="list-style-type: none"> • Concern over carbon footprints from importing food creates a new demand for local food at events such as farmers markets which UK farmers can fulfil. (2) • Demand for items such as salad all year round allows farmers in other countries to sell their crops when they are out of season from UK producers. (2) • Concern over the environment and personal health creates demand for organic foods which UK and foreign producers can then exploit so they can 	2

		<p>increase their sales. (2)</p> <p>No credit for problems or negative comments instead of opportunities.</p> <p>AO2 – 2 marks</p>	
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<p>Indicative content</p> <ul style="list-style-type: none"> • Level 3 responses will be well developed and reasoned. • Level 2 responses will make some link between demand and water transfer. • Level 1 responses will give basic links or merely assert the connection. • Students should be making some assessment of how proposed transfers will meet the increased future need in the UK. • Figure 10 provides some of the required information by highlighting the rises in population forecast in Oxfordshire and London which will clearly create increased demand simply by virtue of there being more people. • Figure 10 should be used by reference to areas on the map and/or transfer schemes shown and/or figures for population. • The proposed transfers would seem to indicate that this demand will be met by transferring water to Oxfordshire and London. • Students should also be bringing their own knowledge and understanding to the answer through recognition that the transfers are from areas where there is a water surplus. • They could also show recognition that rising population in some areas is just part of the issue as demand is rising through increased use of 																		

		appliances that consume a lot of water such as dishwashers. Therefore the transfers proposed will, not on their own, resolve the issue.	
		AO2 – 3 marks, AO3 – 3 marks	

04	1	<p>One mark for any correctly named country.</p> <p>Those named and labelled on the map: Bangladesh, Syria, Yemen. Also accept any correct that are not named: Cambodia, Tajikistan.</p> <p>AO4 – 1 mark</p>	1
04	2	<p>One mark for each correct answer.</p> <p>3</p> <p>23.07% (accept 23.1)</p> <p>AO4 – 2 marks</p>	2
04	3	<p>Answers should make use of Figure 11 through naming countries and affected areas in order to describe the pattern and should be focussed on the significant risk.</p> <p>One mark for a basic statement, eg</p> <ul style="list-style-type: none"> • Most of the countries are in Africa. (1) • All of the countries with significant risk are LICs/NEEs. (1) • There is a clear 'belt' either side of the Equator in Africa (1) <p>Two marks for development of the pattern, eg</p> <ul style="list-style-type: none"> • Most of the countries are in Africa (1) with a clear 'belt' across the Sahel (d) (1) • All of the countries with significant risk are LICs/NEEs (1) the majority of which are located next to each other in Africa (d) (1) • There is a clear 'belt' either side of the Equator in Africa (1) with isolated countries in Asia and one in the Caribbean (d) (1) <p>No credit for description of any categories other than significant.</p> <p>No credit for explanation.</p> <p>AO4 = 2 marks</p>	2
04	4	<p>Answers should be focussed on explanation of food security risk in general. There is no requirement to use figure 11 but students may do so to aid their explanation.</p> <p>One mark for a basic statement eg</p> <ul style="list-style-type: none"> • Some countries have a risk to their food supply because they are poor (1) • When there is conflict/war this creates a risk to the food supply (1) • Climatic hazards such as drought can damage the food supply (1) <p>Two marks for a developed idea eg</p> <ul style="list-style-type: none"> • Some countries have a risk to their food supply because they are poor (1) so they are unable to buy food if the prices rise on world markets. (d) (1) • When there is conflict/war this creates a risk to the food supply (1) because the infrastructure can be damaged which means that food supplies can't get through (d) (1) • Climatic hazards such as drought can damage the food supply (1) as the 	2

		crops may have lower yields and there will then be less food available (d) (1)	
		AO2 – 2 marks	

04	5	Level	Marks	Description	6
		3 (Detailed)	5-6	AO1 – Demonstrates detailed knowledge of way(s) to improve food security at a local scale in a named LIC/NEE context. AO2 – Shows thorough understanding of the concept of sustainability as part of the relationship between environment and process in relation to improving food security.	
		2 (Clear)	3-4	AO1 – Demonstrates accurate knowledge of way(s) to improve food security at a local scale in a named LIC/NEE context. AO2 – Shows sound understanding of the concept of sustainability as part of the relationship between environment and process in relation to improving food security.	
		1 (Basic)	1-2	AO1 – Demonstrates limited and/or generalised knowledge of ways to improve food security at a local scale in a LIC/NEE context. AO2 – Shows simplistic understanding of the concept of sustainability as part of the relationship between environment and process in relation to improving food security.	
			0	No relevant content	
<p>Indicative content</p> <ul style="list-style-type: none"> • Level 3 responses will be well developed and reasoned. • Level 2 responses will make some link between the strategy and increased supply. • Level 1 responses will give basic links or merely assert the connection. • An understanding of sustainability should be seen in the answer (defined as meeting the needs of the present generation without compromising the ability of future generations to meet their needs) and also of food security (defined as physical and economic access to enough safe and nutritious food to meet their health and other needs). • The answer should also focus on the local scale and an example of such a scheme to improve food supply is stated in the specification and should be expected. • Clearly much of the content will depend on the example selected with likely examples being: education about farming techniques, small scale irrigation schemes such as sand dams in Kenya, Rice/fish culture in Bangladesh, Agroforestry in Mali, ‘Sacrificial’ or ‘Trap’ plants schemes in East Africa, ‘no-dig’ and cover crop/inter-cropping methods. • Students should then utilise this information to show how its small scale 					

		<p>nature and focus on more appropriate technologies is likely to mean that it is sustainable in the long term and will therefore provide more assured food security.</p> <p>AO1 – 3 marks, AO2 – 3 marks</p>	
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05	1	<p>One mark for any correctly named country.</p> <p>Those named and labelled on the map: Pakistan, Saudi Arabia, Yemen. Also accept any correct that are not named: Jordan, Oman, Syria, UAE, Uzbekistan.</p> <p>AO4 – 1 mark</p>	1
05	2	<p>One mark for each correct answer. 3</p> <p>23.07% (accept 23.1)</p> <p>AO4 – 2 marks</p>	2
05	3	<p>Answers should make use of Figure 12 through naming countries and affected areas in order to describe the pattern and should be focussed on the extreme scarcity.</p> <p>One mark for a basic statement, eg</p> <ul style="list-style-type: none"> • Many of the countries are in Africa (1) • Almost all of the countries with significant risk are LICs/NEEs (1) • There is a clear 'belt' across north Africa (1) <p>Two marks for development of the pattern, eg</p> <ul style="list-style-type: none"> • Many of the countries are in Africa (1) with a clear 'belt' across north Africa which extends into the Middle East (d) (1) • Almost all of the countries with significant risk are LICs/NEEs (1) the majority of which are located next to each other in a continuous zone across north Africa, the horn of Africa and the Middle East (d) (1) • There is a clear 'belt' across north Africa (1) with isolated countries in east and south Africa, Asia and two in Europe (d) (1) <p>No credit for description of any categories other than extreme.</p> <p>No credit for explanation.</p> <p>AO4 – 2 marks</p>	2
05	4	<p>Answers should be focussed on explanation of water scarcity risk in general. There is no requirement to use figure 12 but students may do so to aid their explanation.</p> <p>Note that Hot deserts are optional so do not expect or over-reward specific knowledge such as the descending Hadley Cell.</p> <p>One mark for a basic statement eg</p> <ul style="list-style-type: none"> • Some countries have a risk to their water supply because they are located in dry regions with limited rainfall (1) • Over-reliance on aquifers (1) • Climatic hazards such as rainfall variability due to climate change (1) <p>Two marks for a developed idea eg</p> <ul style="list-style-type: none"> • Some countries have a risk to their water supply because they are located 	2

		<p>in dry regions with limited rainfall (1) this means that even the slightest reduction puts them at greater risk (d) (1)</p> <ul style="list-style-type: none"> • Over-reliance on aquifers (1) as these are stored supplies from historic rainfall and are being used faster than they are replaced (d) (1) • Climatic hazards such as rainfall variability due to climate change (1) this means that seasonal rains may not come so small rainfall totals are even lower (d) (1) <p>AO2 – 2 marks</p>	
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05	5			6	
		Level	Marks		Description
		3 (Detailed)	5-6		AO1 – Demonstrates detailed knowledge of way(s) to improve water security at a local scale in a named LIC/NEE context. AO2 – Shows thorough understanding of the concept of sustainability as part of the relationship between environment and process in relation to improving water security.
		2 (Clear)	3-4		AO1 – Demonstrates accurate knowledge of way(s) to improve water security at a local scale in a named LIC/NEE context. AO2 – Shows sound understanding of the concept of sustainability as part of the relationship between environment and process in relation to improving water security.
		1 (Basic)	1-2		AO1 – Demonstrates limited and/or generalised knowledge of ways to improve water security at a local scale in a LIC/NEE context. AO2 – Shows simplistic understanding of the concept of sustainability as part of the relationship between environment and process in relation to improving water security.
		0	No relevant content		
<p>Indicative content</p> <ul style="list-style-type: none"> • Level 3 responses will be well developed and reasoned. • Level 2 responses will make some link between the strategy and increased supply. • Level 1 responses will give basic links or merely assert the connection. • An understanding of sustainability should be seen in the answer (defined as meeting the needs of the present generation without compromising the ability of future generations to meet their needs) and also of water security (defined as physical and economic access to enough safe water to meet their health and other needs). • The answer should also focus on the local scale and an example of such a scheme to improve water supply is stated in the specification and should be expected. • Clearly much of the content will depend on the example selected with likely 					

		<p>examples being: Sand dams in Kenya, Gravity fed schemes in Ethiopia, Rainwater harvesting in Rajasthan.</p> <ul style="list-style-type: none"> • Students should then utilise this information to show how its small scale nature and focus on more appropriate technologies is likely to mean that it is sustainable in the long term and will therefore provide more assured water security. <p>AO1 – 3 marks, AO2 – 3 marks</p>	
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06	1	<p>One mark for any correctly named country.</p> <p>Those named and labelled on the map: Iran, Oman, Thailand. Also accept any correct that are not named: Iraq, Syria, Turkmenistan, UAE, Uzbekistan.</p> <p>AO4 – 1 mark</p>	1
06	2	<p>One mark for each correct answer.</p> <p>3</p> <p>37.5%</p> <p>AO4 – 2 marks</p>	2
06	3	<p>Answers should make use of Figure 13 through naming countries and affected areas in order to describe the pattern and should be focussed on the lowest risk.</p> <p>One mark for a basic statement, eg</p> <ul style="list-style-type: none"> • Most of the countries are in north-western Europe or North America (1) • Almost all of the countries with lowest risk are HICs (1) • There are lowest risk countries in almost all regions of the world (1) <p>Two marks for development of the pattern, eg</p> <ul style="list-style-type: none"> • Most of the countries are in north-western Europe or North America (1) with one in each of South America, Africa and Australasia/Oceania (d) (1) • Almost all of the countries with lowest risk are HICs (1) though there are exceptions in South America and Africa which are LICs/NEEs (d) (1) • There are lowest risk countries in almost all regions of the world (1) though the majority are in north west Europe and there are none in Asia (d) (1) <p>No credit for description of any categories other than lowest risk.</p> <p>No credit for explanation.</p> <p>AO4 – 2 marks</p>	2
06	4	<p>Answers should be focussed on explanation of low energy security risk in general. There is no requirement to use figure 13 but students may do so to aid their explanation.</p> <p>One mark for a basic statement eg</p> <ul style="list-style-type: none"> • Some countries have a low risk to their energy supply because they have high incomes (1) • Plentiful supplies of fossil/other fuels (1) • Risk is low for some countries because they control the energy companies (1) <p>Two marks for a developed idea eg</p> <ul style="list-style-type: none"> • Some countries have a low risk to their energy supply because they have high incomes (1) so they are able to buy energy no matter how high the price (d) (1) 	2

	<ul style="list-style-type: none"> Plentiful supplies of fossil/other fuels (1) such as shale gas in North America means that countries can control their own energy supply (d) (1) Risk is low for some countries because they control the energy companies (1) so even if the supply is not in their country they can secure supplies from wherever it is being found (d) (1) <p>AO2 – 2 marks</p>	
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		AO1 – 3 marks, AO2 – 3 marks	

