

# General Certificate of Secondary Education 2014

## Geography

Unit 2: Living in Our World Higher Tier

[GGG22]

**THURSDAY 22 MAY, MORNING** 

## MARK SCHEME

## **General Marking Instructions**

#### Introduction

Mark schemes are intended to ensure that the GCSE examinations are marked consistently and fairly. The mark schemes provide markers with an indication of the nature and range of candidates' responses likely to be worthy of credit. They also set out the criteria which they should apply in allocating marks to candidates' responses. The mark schemes should be read in conjunction with these general marking instructions.

#### Assessment objectives

Below are the assessment objectives for GCSE Geography.

Candidates must show they are able to:

- recall, select and communicate their knowledge and understanding of places, environments and concepts (AO1);
- apply their knowledge and understanding in familiar and unfamiliar contexts (AO2); and
- select and use a variety of skills, techniques and technologies to investigate, analyse and evaluate questions and issues (AO3).

## Quality of candidates' responses

In marking the examination papers, examiners should be looking for a quality of response reflecting the level of maturity which may reasonably be expected of a 15- or 16-year-old which is the age at which the majority of candidates sit their GCSE examinations.

## Flexibility in marking

Mark schemes are not intended to be totally prescriptive. No mark scheme can cover all the responses which candidates may produce. In the event of unanticipated answers, examiners are expected to use their professional judgement to assess the validity of answers. If the answer is particularly problematic, then examiners should seek the guidance of the Supervising Examiner.

## Positive marking

Examiners are encouraged to be positive in their marking, giving appropriate credit for what candidates know, understand and can do rather than penalising candidates for errors or omissions. Examiners should make use of the whole of the available mark range of any particular question and be prepared to award full marks for a response which is as good as might reasonably be expected of a 15- or 16-year-old GCSE candidate.

## Awarding zero marks

Marks should only be awarded for valid responses and no marks should be awarded for an answer which is completely incorrect or inappropriate.

#### Types of mark schemes

Mark schemes for tasks or questions which require candidates to respond in extended written form are marked on the basis of levels of response which take account of the quality of written communication.

Other questions which require only short answers are marked on a point for point basis with marks awarded for each valid piece of information provided.

## Levels of response

Tasks and questions requiring candidates to respond in extended writing are marked in terms of levels of response. In deciding which level of response to award, examiners should look for the 'best fit' bearing in mind that weakness in one area may be compensated for by strength in another. In deciding which mark within a particular level to award to any response, examiners are expected to use their professional judgement. The following guidance is provided to assist examiners.

- **Threshold performance**: Response which just merits inclusion in the level and should be awarded a mark at or near the bottom of the range.
- **Intermediate performance:** Response which clearly merits inclusion in the level and should be awarded a mark at or near the middle of the range.
- **High performance:** Response which fully satisfies the level description and should be awarded a mark at or near the top of the range.

#### Marking calculations

In marking answers involving calculations, examiners should apply the 'own figure rule' so that candidates are not penalised more than once for a computational error.

## Quality of written communication

Quality of written communication is taken into account in assessing candidates' responses to all tasks and questions that require them to respond in extended written form. These tasks and questions are marked on the basis of levels of response. The description for each level of response includes reference to the quality of written communication.

For conciseness, quality of written communication is distinguished within levels of response as follows:

- Level 1: Quality of written communication is limited
- Level 2: Quality of written communication is satisfactory
- Level 3: Quality of written communication is of a high standard.

In interpreting these level descriptions, examiners should refer to the more detailed guidance provided below.

**Level 1 (Limited):** Candidates present some relevant information in a form and using a style of writing which suits its purpose. The text is reasonably legible. Spelling, punctuation and the rules of grammar are used with some accuracy so that meaning is reasonably clear. A limited range of specialist terms is used appropriately.

**Level 2 (Satisfactory):** Candidates present relevant information in a form and using a style of writing which suits its purpose. The text is legible. Spelling, punctuation and the rules of grammar are used with considerable accuracy so that meaning is clear. A good range of specialist terms is used appropriately.

**Level 3 (High Standard):** Candidates present, and organise effectively, relevant information in a form and style of writing which suits its purpose. The text is fluent and legible. Spelling, punctuation and the rules of grammar are used with almost faultless accuracy so that meaning is clear. A wide range of specialist terms is used skilfully and with precision.

#### Assessment of spelling, punctuation and the accurate use of grammar.

Marks for spelling, punctuation and the accurate use of grammar will be allocated to specific questions where there is a requirement for sufficient extended writing to enable the accurate application of Performance descriptions (see below). These marks will be identified to candidates on the question papers.

## **Performance descriptions**

## (i) Threshold performance

Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.

## (ii) Intermediate performance

Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.

#### (iii) High performance

Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

As shown by the performance descriptions, SPaG marks are awarded in the context of the demands of the question. If the candidate's response does not address the question then no SPaG marks are available. However, if the candidate has attempted to answer the question but produced nothing of credit, SPaG marks may still be awarded.

1 (a) (i) Using **Fig. 1**, describe the global distribution of cities which have over 25% of their population made up from international immigrants.

Award [0] for a response not worthy of credit.

## Level 1 ([1])

A limited description of the distribution of settlements as shown in **Fig. 1**. e.g. Most of these cities are on the coast. [1] or a full list of named cities with no ref to global distribution [1]

## Level 2 ([2]-[3])

A more detailed description of the distribution of settlements as shown in **Fig 1**. This may take the form of a simple list which counts the number of such cities in different regions.

e.g. North America and the Middle East have the most such cities with 7 [2]

e.g. Many are in the (Northern Hemisphere and have coastal locations.)
North America and the Middle East have 7 cities each with 25% or
more international immigrants but Europe has only 4 cities [3]
A good attempt at a global pattern without values [2]
A good attempt at global pattern with a value [3]

## Level 3 ([4]-[5])

A detailed description of the distribution of settlements as shown in **Fig. 1** – for top level 3 the candidate should contrast areas with and without such settlements.

e.g. The cities shown on **Fig. 1** are not evenly distributed around the world. Many are in the Northern Hemisphere and have coastal locations. North America and the Middle East have 7 cities each with 25% or more international immigrants. Europe has 4 such cities, including London. [4] Some continents like South America and Africa have no cities with over 25% international immigrants. [5]

(ii) State **two** pull factors which might attract migrants to cities

It is expected that answers will focus on aspects such as good job opportunities, better schools, better access to hospital care, to be closer to family if a husband/brother has gone before the rest of the family, etc. Award [1] for each correct pull factor up to a max of [2]. e.g. Cities offer migrants more jobs [1] and better health care [2]. (2 × [1])

**(b)** Evaluate the impacts of international migration to a country you have studied within the European Union.

Responses may relate to either a receiving or sending country, either are valid. Impacts must relate to a country within the EU. The impacts must be national, not personal to the migrant. Candidates are likely to classify as social/economic or positive/negative. In order to achieve [6] a concluding statement on the overall effects of the migration is needed.

Social impacts may include pressure on services such as schools and hospitals; many more houses will be needed. Migrants bring aspects of their culture such as food which enrich local communities.

AVAILABLE

Economic impacts may include a willingness to do either low-paid work or fill skilled gaps in the labour market. They pay taxes which helps maintain levels of public services. The increased demand for housing may create jobs but can lead to rises in house prices.

Award [0] for a response not worthy of credit. If discuss immigration into city only award Max Level 1

## Level 1 ([1]-[2])

A superficial answer which simply makes general statements that could apply to any country. There is little attempt to make a meaningful evaluation, e.g. In the UK many migrants take up jobs [1] but put pressure on schools [2].

## Level 2 ([3]-[5])

An answer that clearly describes the impacts of international migration for a specific country in the EU but which lacks case study detail and may only have a superficial evaluative element,

e.g. In the UK immigrants can cause tension with locals and put pressure on schools because English might be their second language. However, they may make a positive impact when they introduce new cultures and food like Chinese take-aways. [5]

## Level 3 ([6]-[7])

A balanced answer that clearly addresses the question by elaborating on both positive and negative impacts for a specific country in the EU. An evaluative statement on whether the impacts are overall good or bad/economic or social is needed for [7]

e.g. In the UK immigrants can cause tension with locals and put pressure on schools, but they may introduce new cultures and food like Chinese take-aways. They made up 13% of the British workforce in 2010, often filling gaps in the labour market within the NHS and can benefit the economy by paying taxes if they work. In fact in the UK government estimates that by paying taxes migrants add between 30 and 40 billion pounds each year to our economy. It seems then that international migration is beneficial to the UK. [7] Accept other valid alternative answers.

Assessment of spelling, punctuation and the accurate use of grammar.

If the answer does not address the question then no SPaG marks are available. If the candidate has attempted to answer the question but produced nothing of credit, SPaG marks may still be awarded.

## Threshold performance ([1])

Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. They use a limited range of specialist terms appropriately.

#### Intermediate performance ([2]–[3])

Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Any errors do not hinder meaning in the response. They use a good range of specialist terms with facility.

### **High Performance ([4])**

Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. They use a wide range of specialist terms adeptly and with precision.

(c) (i) Underline the number of people aged 80–84 in Japan in 2010. Choose your answer from the list below.

AVAILABLE MARKS

7.9 million 4.3 million 5.1 million

Award [1] for indicating the correct answer of 4.6 million. There are no other alternative answers. [1]

(ii) Describe one way the pyramid shape of Japan (a MEDC) differs from a typical LEDC population pyramid.

Award [1] for an answer which discusses a difference but does not make a clear comparison.

- e.g. Japan has a wide top showing it has a lot of older people. [1] Award [2] for an answer which makes a correct shape comparison, either directly or by mentioning the proportions of dependents seen on a population pyramid.
- e.g. Japan has a wider top than most LEDC pyramids which have narrow tops [2] or Japan has a wide top showing it has a bigger aged dependency than most LEDCs. [2] [2]
- (iii) Explain why birth rates are often low in MEDCs.

Award [0] for a response not worthy of credit.

If the candidate discusses causes of a low death rate or a high birth rate then award up to max level 1 [2]

## Level 1 ([1]-[2])

An answer which may outline one acceptable cause of a low birth rate or state two such causes.

e.g. Birth rates tend to be low when people marry later [1] and when contraception is available [2].

## Level 2 ([3]-[4])

An answer which explains one cause of a low birth rate in detail or which briefly explains (at least 3) such causes.

e.g. The age of marriage might be high so often childbirth is delayed and they end up having fewer babies. Contraception also plays a part. In places where it is free fewer children are born. [4]

#### Level 3 ([5]-[6])

An answer which explains two causes with good elaboration that relates to MEDCs. The best answers may refer to exemplar areas or facts e.g. The age of marriage might be high, like in the UK where the average age for women to get married is 30. This means that often childbirth is delayed, and as fertility drops off as women get older, they end up having fewer children than couples in other countries where women marry at a much younger age. Contraception also plays a part. In places where it is free and socially acceptable, couples can decide how many children they want and often this is lower than they would have conceived naturally, so again fewer children are born. [6] Accept other valid alternatives

AVAILABLE MARKS

Award [1] for a definition with limited detail relating to urbanisation, e.g. It's more people living in cities.

Award [2] for a correct definition with detail on urbanisation. e.g. An **increase in the proportion** of a country's population who live in cities.

Accept other valid alternative answers

[2]

(ii) Suggest why shanty towns might have developed close to the CBD and wealthier districts.

It is expected that candidates make suggestions such as close proximity to jobs or easy access to services in the CBD. Accept other valid alternative answers, e.g. begging or casual employment

Award [1] to an answer which partially explains why shanty towns would be found in such locations.

e.g. To be closer to the shops and offices of the CBD.

Award [2] for an answer which gives a more detailed explanation as to why shanty towns would be found in such locations.

e.g. To be closer to the shops and offices of the CBD so that the people who live in the shanty town can easily walk to work [2] [2]

**(e)** Describe the growth and characteristics (living conditions) of shanty towns seen in a LEDC city you have studied.

Award [0] for a response not worthy of credit. Max Level 1 – no named city

## Level 1 ([1]-[2])

An answer which may only answer **one part** of the question with very limited detail,

e.g. In India people in shanty towns don't have clean water or toilets. [2]

## Level 2 ([3]-[4])

An answer which either addresses one part of the question with excellent detail [3] or both parts of the question including some detail [4] e.g. In Kolkata in India shanty towns have existed for about 150 years. In the last few decades they have grown rapidly and now about 4 million people live in such areas. The fastest period of growth was between 1981–1991 when they grew by 32%. [3] or In Kolkata in India shanty towns have existed for about 150 years. In the last few decades they have grown rapidly. Living conditions are basic in the shanty towns (known as bustees in India). They are crowded and lack sanitation and clean water supplies. [4]

#### Level 3 ([5]-[6])

An answer which covers both growth and living conditions of shanty towns in a named LEDC city with excellent detail (and at least 2 specific facts/figures relating to the question for top level 3).

e.g. In Kolkata in India shanty towns have existed for about 150 years. In the last few decades they have grown rapidly due to urbanisation and now about 4 million people live in such areas. The fastest period of growth was between 1981–1991 when they grew by 32%. Living conditions are basic in the shanty towns (known as bustees in India). They are crowded and lack

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sanitation and clean water supplies. It is estimated that there's one water tap for 30 people. They are not connected to the main electricity supplies and people are very poor [6] [6]

## (e) Assessment of spelling, punctuation and the accurate use of grammar.

If the answer does not address the question then no SPaG marks are available. If the candidate has attempted to answer the question but produced nothing of credit, SPaG marks may still be awarded.

#### Threshold performance ([1])

Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.

## Intermediate performance ([2]–[3])

Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.

## High performance ([4])

Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. [4]

(f) (i) [1] per correctly used word in the table. As a word bank was provided there are no alternative answers.

Settlement name	Type of settlement	Schools	Transport	Shops
Penrith	Town	Several primary schools and secondary schools.	One small bus station and one train station.	A wide variety including supermarkets.
Clifton	Village	One small primary school.	One bus stop.	A small selection, including a general grocery store.

[2]

(ii) Name **two** services that would be found in a city but not in smaller settlements.

[1] for each correctly identified high order service, e.g. main airport, cathedral, university, national football stadium. Accept other valid alternatives, e.g, Bank HQ, Railway Terminal, teaching hospital (2 × [1]) [2]

(- [.1)

(iii) Explain why small settlements can only support low order services.

Small settlements offer low order services because they have a small population that can only supply the market needed to match the threshold values of low order goods and services, also they have a small sphere of influence so do not attract people from long distances to use their goods and services

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Award [0] for a response not worthy of credit.

## Level 1 [1]

A simple stated reason which is valid, e.g. They have a small population.

## Level 2 ([2]-[3])

A valid reason with some elaboration or two simple statements, e.g. They only have a small population and so cannot keep things like furniture shops in profit. [2]

#### Level 3 [4]

A discussion that mentions the ideas of threshold, sphere of influence and range.

e.g. Small settlements have small populations that can only supply the market needed to match the threshold values of low order goods. They don't tend to attract people from distant places giving them a small sphere of influence, so even visitors do not make up the customer numbers needed for high order goods or services. [4]

(g) Describe a scheme in a named MEDC city you have studied which is designed to improve its inner city zone and assess how sustainable this scheme is.

Award [0] for a response not worthy of credit – this includes traffic management schemes.

If the candidate discusses a shanty town improvement strategy, award up to max level 1 if the shanty town is in the inner city area of that city.

## Level 1 ([1]-[3])

A short answer which may address only one aspect of the question and which contains very little detail, especially detail specific to one named city. e.g. In Belfast they are building lots of new offices and apartments, new roads and even a museum. [2]

## Level 2 ([4]-[6])

An answer which either addresses both aspects of the question in some detail, or one side of the question in great detail. If answer only discusses the improvements with detail it can score max [6].

e.g. In the Titanic Quarter of Belfast lots of apartments and offices are being built, some of the offices already provide jobs which is encouraging people to live and work there and create a community which might make the area sustainable in the longer term. [4]

e.g. the Titanic Quarter in Belfast is being redeveloped. A company called Titanic Quarter Ltd is transforming this brownfield site into an area of mixed land use. They plan to build over 7500 apartments, including some social housing projects. There is to be a Titanic Signature project incorporating a museum to the Titanic ship, a third level education campus, lots of offices and even a cruise liner birth. They also plan to provide local services like health care centres and day nurseries for children. In all this project is likely to cost over £5 billion. [6] NO EVALUATION OF SUSTAINABILITY

#### Level 3 ([7]–[9])

An answer which addresses both aspects of the question with good detail and includes at least 2 specific facts/figures and which has some judgement or conclusion for [9].

e.g. The Titanic Quarter in Belfast is being redeveloped. A company called Titanic Quarter Ltd. is transforming this brownfield site into an area of mixed I and use. Previously this area was waste ground though originally it was a working dock and shipyard. They plan to build over 7500 apartments, including some social housing projects. There is a Titanic Signature project incorporating a museum to the Titanic ship, a third level education campus, lots of offices and even a cruise liner birth. They also plan to provide local services like health care centres and day nurseries for children. The area is being decontaminated and on the 1.5 km of water frontage the biodiversity is being preserved to further increase the sustainability. As this development will encourage people to live and work in the same area and it's within walking distance of the CBD, then fewer people will drive to work, reducing the CO<sub>2</sub> emissions and again encouraging long term sustainability. [8]

Overall the company is trying to create a community which has a long term future and which includes the other local areas in order to create a sustainable future for the area. [9] [9]

AVAILABLE

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- 2 (a) Study Fig. 4 and Table 2 which shows the United Nations (UN) Millennium Development Goals and selected indicators of development information for some countries.
  - (i) State **one** MEDC in **Table 2**, highlighting **one** piece of evidence that helped you make your decision.

[1]

Evidence

Any of the answers below are acceptable.

Award [0] if candidate uses other indicators not in Fig. 4

It has a high literacy rate. Don't accept literacy rate -99

It has no children who are malnourished.

It has a low infant mortality.

A low number of people die from HIV/AIDS.

all [1]

(ii) Study Fig. 4 to complete Table 2 by selecting the UN Millennium Goal which can be measured by the chosen indicator of development. One has been completed for you.

UN Millennium Goal	Indicator of Development	
GIVEN	% of people infected with HIV/AIDS.	
GOAL 2 Universal Primary Education	Literacy Rate (%)	
GOAL 1 Eradicate hunger	% of children (0–5yrs) who are underweight	
GOAL 4 Reduce child deaths	Infant Mortality Rate (per thousand)	

 $(3 \times [1]) \tag{3}$ 

(b) Explain how a project which uses appropriate technology has led to sustainable economic and environmental improvements in a named LEDC you have studied.

If only problems are highlighted then maximum Level 1
Answer should focus on **economic** and **environmental** improvements.
Don't credit social improvements, e.g. literacy rate, life expectancy.
No named place or incorrect place Max Level 1

#### Level 1 ([1]–[2])

A basic statement on the improvements made.

More jobs are created. [1]

More jobs are created and the environment is not destroyed as less trees are cut down. [2]

#### Level 2 ([3]-[4])

A more detailed statement which focuses on economic and environmental improvements.

One improvement may be developed more fully than the other. If only economic or environmental done then bottom Level 2. [3]

AVAILABLE

New boats were designed for fishermen in SW India as the old boats could not compete with the larger trawlers. These new boats have meant that fishermen have a guaranteed income which can be spent in their local area. It also encourages people to remain in the area. [3]

The fact they use fibreglass to make the boats means fewer trees need to be cut down. [4]

## Level 3 ([5]-[6])

A thorough explanation relating to both sustainable economic and environmental improvements using two fact/figures relating to their case study.

1 F/F will get access to [5].

In India in the states of Kerala and Tamil Nadu local fishermen worked with many European agencies to redesign the old wooden boats to new fibreglass boats. As these boats gained popularity, 5000 new job opportunities have resulted in the building of these boats and related industries. To date two-thirds of all fishermen now own these boats. These boats have allowed the fishermen to fish for longer. This has resulted in larger catches which guarantees income into the Kerala and Tamil Nadu areas. [5]

2 F/F will access [6].

The use of different materials other than wood have helped reduce the amount of deforestation in this area. This ensures that the natural environment can be preserved for the future.

[6]

- (c) Study Fig. 5 which shows the location of a global company. Answer the questions which follow.
  - (i) Describe the location of the production factories in **Fig. 5**. Refer to LEDCs and MEDCs in your answer.

Award [0] for a response not worthy of credit.

Don't credit answers which explain the location of these factories, e.g. low wages, etc.

Don't credit answers relating to location of TNC headquarters.

A candidate that just lists the countries they are found then maximum [1].

Award [1] for a simple description, e.g. they are found all over the world. They are mainly in LEDCs [1]

Award [2] for a statement that identifies that they are grouped together in various continents, or comparison between MEDCs and LEDCs with figures.

e.g. they are found in Asia mainly in China, India and Malaysia as well as South America in Brazil and Venezuela.

Award [3] for a full pattern highlighted indicating LEDC, NIC or MEDC countries.

e.g. they are found in Asia mainly in China, India and Malaysia as well as South America in Brazil and Venezuela. Factories are also located in Central America. These are all LEDC countries. Two factories are located in Europe – Spain which is a MEDC. [3]

AVAILABLE

(ii) State the meaning of the term globalisation.

Award [0] for a response not worthy of credit.

Award [1] for a partially correct definition, e.g. the way the world is becoming more connected.

Award [2] for a full definition, to get [2] 2 out of 3 concept e.g. the way the world is becoming more connected through trade, technology and ideas.

[2]

(iii) What does the term NIC stand for?

Newly Industrialising Country or Newly Industrialised Country

[2]

If candidates get one of the words incorrect then award [1] If candidate gets two of the words incorrect then award [0].

(iv) Explain how globalisation has both helped and hindered development an a LEDC or NIC you have studied.

If no named LEDC or NIC then max Level 1.

Award [0] for a response not worthy of credit.

A named LEDC or NIC, e.g. India

## Level 1 ([1]-[2])

Simple statements that focus on how globalisation can help and/or hinder development,

e.g. it has made people richer [1] or

e.g. In India foreign investors have been encouraged to invest money. This has helped the economy of India grow. [2]

#### Level 2 ([3]–[5])

Statements that start to explain how globalisation can help and hinder development in India. Answers which are unbalanced may be in this level.

e.g. In India foreign investors have been encouraged to invest money. This has helped the economy of India grow, which is a help to development however many Indians live below the poverty line as the benefits of globalisation have not reached them. [3]

In India foreign investors such as TNCs have been encouraged to invest money. This has helped the economy of India grow, which is a help to development however many Indians live below the poverty line as the benefits of globalisation have not reached them. This causes tension between the rich and the poor in India. [5]

## Level 3 ([6]-[7])

Statements that start to explain how globalisation can help and hinder development in India. To achieve bottom Level 3, one fact/figure must be given. Two fact/figure can achieve top Level 3

In India foreign investors have been encouraged to invest money. This has helped the economy of India grow, which is a help to development. In the last 20 years the middle class in India has risen from 17 to 35 million however despite globalisation 300 million Indians still live on less than \$1 a day. This uneven wealth that globalisation has created in India means that some rebel groups are now attacking wealthy areas which is creating a security issue in the country. [7]

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- 3 (a) (i) Complete graph showing resource depletion by adding Natural Gas 60 years.
  - Level 1 [1] Bar added accurately to 60 years.
  - Level 2 [2] Bar added accurately to 60 years and shaded to match other bars.

(ii) How much longer will coal last compared to oil?

Answer 100 years. [1]

(iii) State the meaning of the term Resource depletion.

Award [1] for a simple accurate statement. e.g. Resource depletion means resources will run out.

Award [2] for a complete definition.

e.g. Resource depletion means resources will run out as they are being used faster than they are being replaced.

[2]

[2]

(iv) Evaluate **one** energy source – solar power or wind power or biofuels and how its use is a sustainable solution to the problem of resource depletion.

Award ([0]) for response not worthy of credit.

## Level 1 ([1]-[2])

Simple accurate statements. Address only positive or negative [L1] e.g. The resource is renewable [1] and won't run out. [1]

#### Level 2 ([3]-[4])

Explanations which have some evaluation referring to both positive and negative aspects: one may be more detailed than the other. e.g. Wind power is free and wind energy is renewable and won't run out but sometimes there is very little wind so no energy is generated.

## Level 3 ([5]-[6])

More detailed explanations containing evaluation which refers to both positive and negative aspects and elaboration specific to the area studied and includes an overall judgement. 2 fact/figure needed, e.g. Wind power is free and wind energy is renewable and won't run out; this means it is sustainable as one small wind farm provides electricity for about 8000 homes in Co Antrim will last for future generations to use: it is relatively cheap to run after the cost of the turbines, but sometimes there is very little wind or the wind may blow too fast so the blades break or must be switched off, so no energy is generated; it is also sustainable because using wind energy does not cause pollution or harm the environment [or only the low humming noise of the blades and the appearance of large numbers of wind turbines in scenic areas affect the environment to a small extent and may reduce tourism by 40% in areas such as Co Antrim NI. Overall, wind power may not be sustainable because they do not produce enough energy and may need replaced. (Accept the reverse judgement). [6]

(b) (i) Change in number of landfill sites in West Sussex.

AVAILABLE MARKS

Basic pattern described.

e.g. The number has fallen/decreased.

The pattern is described with figures quoted accurately.

e.g. The number of landfill sites has fallen from 7 sites to 1 operational site. Also accept  $6 \rightarrow 1$  operational site [2]

(ii) Possible reason for the decrease of landfill sites should be related to concern for health, the environment or government targets for reducing waste to landfill. Credit promote recycling leading to a reduction.

Award [1] for a brief statement, e.g. the waste in landfill sites causes pollution.

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(up to 2 marks)

Award [2] for a statement with a consequence,

e.g. the waste in landfill sites causes pollution from smells/gases or chemicals, etc, which are harmful to the environment.

Award [3] for a statement, consequence with elaboration of an example e.g. the waste in landfill sites produces harmful chemicals such as mercury in batteries (or gases such as methane) which cause pollution in the groundwater and destroy the environment. [3]

 (iii) Named local government area such as Belfast and one sustainable method of managing waste which may be related to the waste hierarchy - Reduce/Reuse/Recycle. No named area - Level 1

Award [1] for a simple statement,

e.g. Belfast is trying to reduce the amount of waste going to landfill sites by encouraging more people to recycle.

Award [2] for a statement and consequence,

e.g. Belfast is trying to reduce the amount of waste going to land fill sites by encouraging more people to recycle paper, aluminium, glass and plastics; this is done by setting up recycling centres.

Award [3] for a detailed explanation of how waste is managed with elaboration of one fact/fig/place related to the named local government area and reference to sustainability,

e.g. Belfast is trying to reduce the amount of waste going to landfill sites by encouraging more people to recycle paper, aluminium, glass and plastics; this is done by setting up recycling centres close to where people live such as at Palmerston Rd at Sydenham and it is sustainable because it means less waste is put in landfill sites which eventually will fill up.

[3]

(c) Evaluation of measures to manage traffic in a sustainable manner in a named city in the EU outside the British Isles; One named city could be Freiburg in Germany

AVAILABLE MARKS

Award [0] for a response not worthy of credit. No named city Level 1 max.

## Level 1 ([1]-[2])

Simple accurate statements

e.g. Public transport was encouraged by building more cycle tracks, or trams were introduced

Candidates present some relevant information in a form and using a style of writing which suits its purpose. The text is reasonably legible. Spelling, punctuation and the rules of grammar are used with some accuracy so that meaning is reasonably clear. A limited range of specialist terms is used appropriately.

## Level 2 ([3]-[4])

Statements with consequences which have some evaluation referring to at least two measures although one may be more detailed than the other e.g. People were encouraged to use public transport by being given passes and cyclists were given the right of way at junctions so that the use of the car decreased; however there is no free parking in the city centre of Freiburg and residents must pay for a parking pass in their street

Candidates present relevant information in a form and using a style of writing which suits its purpose. The text is legible. Spelling, punctuation and the rules of grammar are used with considerable accuracy so that meaning is clear. A good range of specialist terms is used appropriately.

#### Level 3 ([5]–[6])

Statements and consequences with more detailed evaluation which includes two facts/figs/places in the named city and refers specifically to sustainability by providing an evaluative statement as to whether the measures are sustainable or not,

e.g. People were encouraged to use public transport by being given passes and cyclists were given the right of way at junctions so that the use of the car decreased from 60–46% from 1976 to 1992 or trams were introduced which meant that journey times to work decreased as over 70% of local journeys are now made using the tram system: however there is no free parking in the city centre of Freiburg and residents must pay for a parking pass in their street: this increased use of public transport is sustainable because less pollution is produced so the environment is more protected and it preserves the historic centre of Freiburg for the future

No requirement to address negative aspects of measures.

Candidates present, and organise effectively, relevant information in a form and style of writing which suits its purpose. The text is fluent and legible. Spelling, punctuation and the rules of grammar are used with almost faultless accuracy so that meaning is clear. A wide range of specialist terms is used skilfully and with precision. [6]

25

Total

108