



Rewarding Learning

**General Certificate of Secondary Education
2022**

Geography

Unit 2: Living in Our World

[GGY21]

WEDNESDAY 8 JUNE, AFTERNOON

**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.

Assessment objectives

Below are the assessment objectives for GCSE Geography.

Candidates must show they are able to:

AO1 Demonstrate geographical knowledge and understanding of:

- Places, environments, processes and concepts; and
- The inter-relationships between places, environments and processes;

AO2 Apply knowledge and understanding to analyse, interpret and evaluate geographical information and issues and to make judgements; and

AO3 Select, adapt and use a variety of skills and techniques to investigate questions and issues and communicate findings.

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 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 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.

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.

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.

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 basic.

Level 2: Quality of written communication is good.

Level 3: Quality of written communication is excellent.

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

Level 1

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

Level 2

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

Level 3

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

COVID-19 Context

Given the unprecedented circumstances presented by the COVID-19 public health crisis, senior examiners, under the instruction of CCEA awarding organisation, are required to train assistant examiners to apply the mark scheme in case of disrupted learning and lost teaching time. The interpretation and intended application of the mark scheme for this examination series will be communicated through the standardising meeting by the Chief or Principal Examiner and will be monitored through the supervision period. This paragraph will apply to examination series in 2021–2022 only.

- 1 (a) Study **Fig. 1** which shows the five stages of the demographic transition model. Answer the questions which follow.

- (i) Complete **Fig. 1** by labelling the lines A, B and C on the demographic transition model. Choose your answers from the terms below.

A = Death rate

B = Total Population

C = Birth rate

Accept Death, Birth and Population

(3 × [1])

[3]

- (ii) State the meaning of the term **natural decrease**.

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

Award [1] for a basic definition, e.g.

This occurs when there are more deaths than births.

Award [2] for a full definition, e.g.

This occurs when there are more deaths than births. The population will decrease or go down.

[2]

- (iii) Describe and explain the characteristics of Stage 2 of the demographic transition model.

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

Level 1 ([1]–[2])

Basic description or explanations of up to two characteristics (births, deaths or population),

e.g. Birth rates remain high [1] and death rates begin to fall [1].

e.g. Birth rates stay high due to no contraception available [2]

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

Level 2 ([3]–[4])

Limited description and explanation of two characteristics (births, deaths or population),

e.g. Birth rates remain high due to no contraception available in the country but death rates begin to fall. [3]

e.g. Birth rates remain high due to no contraception available in the country but death rates begin to fall as new medicines are made available to eradicate diseases. [4]

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

Level 3 ([5]–[6])

Detailed description and explanation of all three characteristics, e.g. Birth rates remain high due to no contraception available in the country, but death rates begin to fall as new medicines are made available to eradicate diseases. This will cause the population to grow rapidly [5] due to the large natural increase between births and deaths. [6]

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

- (b) Study **Fig. 2** which shows a population pyramid for Botswana in Africa. Answer the questions which follow.

- (i) Underline the correct answer in the following statements about the population pyramid for Botswana. One has been completed for you.

- There are fewer **women / men** aged 65–69 (given).
- Elderly dependents are aged **0–14 / 65+** years.
- Botswana has a **low / high** death rate.
- The population pyramid for Botswana has a **triangular / rounded** shape.

(3 × [1]) [3]

- (ii) Using **Fig. 2**, underline the percentage of youth dependents living in Botswana.

31% [1]

- (iii) Explain **one** economic implication of a youth dependent population

Economic implications can be positive, e.g. future workforce or negative, e.g. provision of services, pressure on resources.

Award [0] for a response not worthy of credit or answers which focus on aged population or are social implications.

Award [1] for a basic statement relating to an economic implication, e.g. Money will have to be invested into schools.

Award [2] for a limited explanation of one economic implication of a youthful population, e.g. Money will have to be invested into schools. This will mean employing more teachers and building schools to help raise the provision of education.

Award [3] for a detailed explanation of one economic implication of a youthful population, e.g. Money will have to be invested into schools. This will mean employing more teachers and building schools to help raise the provision of education. This will mean money will have to be raised from taxing the working population. [3]

- (c) Explain **one** human barrier to migration.

Award [0] for a response not worthy of credit such as a physical barrier or language barrier.

Award [1] for a basic statement relating to a human barrier to migration,
e.g. They may not have a passport or visa.
e.g. Man made wall on the border.

Award [2] for a limited explanation of one human barrier to migration,
e.g. They may not have a passport or visa which means they will not get through immigration or border security.

Award [3] for a detailed explanation of one human barrier to migration,
e.g. They may not have a passport or visa which means they will not get through immigration. Each country will have a specific set of rules and may score the person on the type of skills and qualifications that someone might need to have to enter that country, e.g. (Australia). [3]

- (d) With reference to your case study, discuss the challenges faced by the destination country to which refugees have travelled.

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

Do not accept answers on the challenges to the refugees, e.g. journey, living conditions in the camps, racism experienced etc
No need to name refugee group, only destination country.

If no destination country stated then award Level 1.

Level 1 ([1])

A basic statement relating to a challenge faced by a destination country,
e.g. the country will become overpopulated.

Level 2 ([2]–[3])

A limited discussion of the challenges faced by the destination country to which refugees have travelled, with some case study detail evident. Two challenges need addressed with some case study detail for 3 marks,
e.g. Greece's population has increased by 240,000. This places enormous pressure on the health and welfare service [2]. Greece currently has high rates of youth unemployment so it will be very difficult to find employment for the refugees. [3]

Level 3 ([4])

A detailed discussion of the challenges faced by the destination country to which refugees have travelled, which relates to the destination country with good case study details evident,
e.g. Greece's population has increased by 240,000. This places enormous pressure on the health and welfare service [2]. Greece currently has 50% youth unemployment so it will be very difficult to find employment for the refugees. Greece relies heavily on tourism for its economy. The refugee crisis in Greece has had a negative impact on the number of tourists arriving in Greece as tourists are seeing negative images of the conditions in the refugee camps (Moria and Idomeni). [4]

Theme B: Changing Urban Areas

AVAILABLE
MARKS

2 (a) Study the Ordnance Survey extract for Coventry, England and answer the questions which follow.

(i) State the height of the land at the triangulation pillar at Allesley, GR 2881.

135m [1]

(ii) State the straight line distance between principal railway station located at GR 332782 and the railway station in the suburbs at GR 275775.

5.6 to 5.8 km [2]
5.5 to 5.59 or 5.81 to 5.9 km [1] [2]

(iii) State the direction of the Motor Works at GR 3476 from Motorway Junction 3 at GR 3485.

South [1]

(iv) Estimate the approximate area of the Sewage Works found mainly in GR 3374. Underline your answer in the list below.

0.3 km² [1]

(v) State one piece of map evidence that the area located inside the circular dual carriageway mainly in GR 3378 and GR3379 is the CBD of Coventry.

Award [0] for responses which are correct characteristics of the CBD but not evidenced from the O.S. map, e.g. tall buildings/large department stores, lots of buildings, high density buildings, churches, lots of roads, roundabouts, ring road.

Do not accept evidence from outside this area bounded by the circular dual carriageway.

Award [1] for any valid piece of evidence from inside the area delimited by the dual carriageway:

- Town Hall
- Cathedral
- Museum(s)
- Tourist Information Centre (all year)
- Very accessible – all main roads converge here
- Bus or coach station [1]

- (b) Study **Table 1** which gives information about some changes in the Earlsdon area of Coventry (GR 3277) between 2010 and 2020.

- (i) Using **Table 1**, explain how this information shows that the area of Earlsdon has undergone gentrification. Use at least **two** pieces of evidence from **Table 1** to support your answer.

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

Level 1 ([1])

A basic statement from the table that quotes one valid change indicative of gentrification which may include figure(s).

Alternatively, [1] mark can be awarded for answers which simply define gentrification.

e.g. Expensive houses

e.g. Wealthy people live there

e.g. Average house prices have increased by over £100,000 in ten years.

e.g. Gentrification occurs when richer people move into an area and improve the quality of the neighbourhood.

Level 2 ([2]–[3])

A limited explanation which refers to two pieces of evidence and attempts to relate them to gentrification. One may be in more detail than the other. Need a figure for top Level 2. e.g. Houses have become more expensive so there are fewer working class people [2].

e.g. After gentrification houses have become more expensive at £300,000 so there are fewer working class people as only professional people could afford these expensive houses [3].

Level 3 ([4])

A detailed explanation which refers to two pieces of evidence from the table (with figures) and **shows in good detail how they are interconnected and indicate gentrification**. Specific facts must be quoted.

e.g. Gentrification occurs when richer people move into an area and improve the quality of the neighbourhood. This is illustrated by the fact that the average income of people living in the area has increased by £2,500 (6%) in the ten-year period and the average earnings are high at £43,500. These high earners can afford to improve/upgrade their homes and this has led to an increase in the average cost of houses of £104,050.

e.g. Gentrification is when richer people move into an area and improve the quality of the neighbourhood leading to high property prices beyond the purchasing power of locals. In Earlsdon house prices have

increased by over £100,000 which local people could not afford and this has led to a decrease in the number of working class people living in the area from 24% to 17%.

e.g. The area has seen a decrease in the percentage of working class residents from 24% to 17% between 2010 and 2020. This was matched with an increase in average income from £41,000 to £43,500. Only high earning people can afford to live in this area where houses have become very expensive.

e.g. The fact that housing prices have increased from £195,950 to £300,000 between 2010 and 2020 along with a £2,500 increase in average earnings over the same period shows that the quality of the

neighbourhood has improved as more affluent residents have moved in. This is typical of gentrified areas.

e.g. The decrease in poverty from 28% to 22% of households and higher average house prices of £300,000 reveal that this area has improved and has fewer poor people. The residents have also changed with a lower percentage of working class people and the new, more wealthy residents have been able to afford to improve their housing and neighbourhood leading to gentrification of this area. [4]

- (ii) Using map evidence **only**, outline **one** reason why Earlsdon (GR 3277) is an attractive area in which to live.

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

Award [1]

A single valid piece of map evidence or a list of reasons evidenced from the map.

e.g. close/walking distance to the CBD [1]

e.g. near a roundabout [1]

e.g. close to a school [1]

e.g. near War Memorial Park [1]

e.g. close to Stivichall Common/Hearsall Common [1]

e.g. close to golf course [1]

e.g. close to attractions in CBD such as the Cathedral/Museums etc [1]

e.g. has a cycle route, e.g. close to a park and ride [1]

e.g. non-coniferous wood [1]

e.g. green spaces [1]

Award [2]

A valid piece of map evidence with some elaboration why this makes the area an attractive place to live.

e.g. Close/walking distance to the CBD which is convenient for work in offices/entertainment [2]

e.g. Close to Stivichall Common/Hearsall Common/golf course which is pleasant for leisure time [2]

e.g. Close to local amenities such as a school which would be convenient if they have children [2] [2]

- (c) Approximately 28% of all people living in Coventry come from an ethnic minority group. Cities such as Coventry can face issues due to their cultural mix.

Complete **Table 2** by placing a tick (✓) in the appropriate box to sort the issues listed into ethnic tensions, religious tensions or language barriers. One has been completed for you.

Table 2

Issue	Ethnic Tension	Religious Tension	Language Barriers
Patient may not understand the doctor			✓
People have different beliefs		✓	
Some people do not get on with others with different customs and values	✓		
Homes are attacked when people of a different race move in	✓ (given)		

(3 × [1])

[3]

- (d) Explain why there has been a rapid growth in shanty town areas in many LEDC cities. Give **one** reason in your answer.

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

Award [1]

A basic statement on the growth in shanty towns. Answers may focus on push or pull factors or natural increase.

e.g. People are pulled to the city in search of work.

e.g. Mechanisation of farming has pushed people to the cities.

e.g. Young couples in the shanty towns have lots of children/high Birth Rate.

e.g. People who move to the city cannot afford to live anywhere else so the shanty towns continue to grow.

Award [2]

A limited statement explaining the cause of people moving to the cities,

e.g. Shanty town areas provide a starting point for people who have moved to the city in search of employment in the TNCs.

e.g. Many poor people are forced to the cities in search of employment due to the mechanisation of farming in the rural areas.

Award [3]

A detailed statement explaining the cause of people moving to the cities,

e.g. Many rural migrants are pulled to the city due to the employment opportunities offered by the TNCs and as these people have little money they can only afford to live in poor shanty town areas as they seek a better quality of life.

e.g. Service provision is higher in the cities so rural migrants move to the city to live closer to hospitals and schools to improve their quality of life. These migrants often cannot find stable employment and work in the informal sector so can only afford to live in poorer shanty town areas.

e.g. Many of the people who move to the city are young and the high birth rate in LEDC cities means that there is a high rate of natural increase in the shanty towns resulting in an increase in population and growth of the shanty towns. [3]

- (e) With reference to **one** MEDC urban planning scheme you have studied, evaluate the improvements this scheme has made to housing and employment opportunities in the inner city zone.

Name of MEDC urban planning scheme.

Any valid scheme, e.g. Titanic (Quarter) Belfast (no mark).

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

Award Level 1 maximum if no named inner city area/planning scheme.

Level 1 ([1]–[2])

A basic response relating to one improvement or both housing and employment opportunities in general terms. Responses at this level lack evaluation.

e.g. There were new apartments built [1] and new, modern service jobs were created [2].

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

Level 2 ([3]–[5])

A limited response which address both housing and employment opportunities with some detail,

e.g. In Titanic Quarter lots of new apartments have been built including 7,500 apartments in the Arc development which attract young professional people who can live close to their work in the area or walk to their places of work in the CBD. Employment opportunities have increased in Titanic Quarter with modern jobs in scientific research and service industries [3] such as tourism in the Titanic Signature Project. New hotels provide work and there are also jobs available in modern technology and research [4]. However, not many of these jobs are suitable for local people. [5]

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

Level 3 ([6]–[7])

A detailed response which addresses housing and job opportunities and contains evaluation of both. An overall judgement or conclusion is needed for the full [7] marks.

e.g. In Titanic Quarter lots of new apartments have been built such as 7,500 apartments in the development called the Arc. These attract young

professional people who can live close to their work in the area or walk to their jobs in Belfast's CBD. This means people can have a healthier lifestyle and save on transport costs. However, there are many unoccupied apartments in the Arc because only young professional people can afford these expensive apartments and they are out of the price range of many local people. Employment opportunities have increased in Titanic Quarter with new service industries such as tourism in the Titanic Signature Project, hotels, and in modern technology and research. It is hoped that 20,000 new jobs will be created in Titanic Quarter in such places as the Northern Ireland Science Park and these will replace the traditional jobs in shipbuilding of the past. However, local people will require more training in the new high technology and research centres in the area. [6] Overall the benefits to people of this scheme outweigh the negatives and make Titanic Quarter a modern vibrant area for people to live and work in the future. [7]

Spelling, punctuation and the rules of grammar are used with almost faultless accuracy so that meaning is clear. Candidates present, and organise effectively, relevant information in a form and using a style of writing which suits its purpose. The text is fluent and legible. A wide range of specialist terms is used skilfully and with precision. [7]

Theme C: Contrasts in World Development

AVAILABLE
MARKS

- 3 (a) (i) Describe the distribution of GNI (per capita) in the continent of Africa

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

Award [1] for a basic statement
e.g. Most of Africa has a low GNI.

Award [2] for a brief statement
e.g. Most of Africa has a low GNI. With the middle countries being below \$10,000.

Award [3] for a more developed description
e.g. Most of Africa has a low GNI with many of the countries in the middle of the continent being below \$10,000. There is a band of countries in the north and south who have a higher GNI of between \$10,000 and \$23,999. [3]

- (ii) Using **Table 3**, name two MEDC countries

Two answers should include USA, Japan or Spain
(2 × [1]) [2]

- (b) (i) The GNI (per capita) is an economic indicator of development. Explain why this may not be the most effective measure of development

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

Award [1] for a basic statement,
e.g. GNI is only one economic indicator/lots of factors influence development.
e.g. it does not include social factors

Award [2] for a brief statement,
e.g. GNI is only one economic indicator and does not take into account any of the social measures.

Award [3] for a more developed explanation,
e.g. GNI is only one economic indicator and does not take into account any of the social measures of development; Other more effective measures like HDI comprise both social and economic measures to rank a country in terms of its level of development. A country may have a high GNI but many people will continue to live in poverty. [3]

- (ii) Name **one** social indicator of development

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

Credit any relevant social indicator such as life expectancy, the number of patients per doctor or adult literacy rate. [1]

- (c) Name **one** of the Sustainable Development Goals and describe how it attempts to reduce the development gap.

Sustainable Development Goal: Wording used must exactly match the goals as listed in either of the tables provided overleaf.

The number of the goal does not need to be shared explicitly

Award [0] for an answer not worthy of credit.

Candidates can mention any of the 17 SDGs:

Goal 1	End poverty in all its forms everywhere	Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote well-being for all at all ages	Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls	Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all	Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation	Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable	Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts	Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
Goal 17	Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development		

AVAILABLE
MARKS



United Nations Sustainable Development Goals: <https://www.un.org/sustainabledevelopment/> "The content of this publication has not been approved by the United Nations and does not reflect the views of the United Nations or its officials or Member States".

Award [1] for a basic statement which names of Sustainable Development Goal e.g. Goal 1 tries to end poverty in all of its forms everywhere.
[identification of goal]
(Goal number not specifically required)

Award [2] for a limited description.
e.g. Goal 1 tries to end poverty in all of its forms everywhere. The goal aims to get rid of poverty so that fewer people are living on less than \$1.25 a day.

Award [3] for a detailed explanation which goes into clear detail about how the goal listed attempts to reduce the development gap.
e.g. Goal 1 tries to end poverty in all of its forms everywhere. The goal aims to get rid of poverty so that fewer people are living on less than \$1.25 a day. This would be done to make sure that all people have access to jobs and services and can own their own land and property. [3]

(d) Fair trade aims to reduce the problem of unequal development.

(i) State the meaning of the term **fair trade**.

Award [0] for an answer not worthy of credit.

Award [1] for a basic statement.
e.g. Fair trade means that producers get paid a fair wage.

Award [2] for a detailed definition of fair trade,
e.g. Fair trade is a strategy used to provide an organised approach to help producers in LEDCs gain better trading conditions and promote sustainability/promote environmental protection.
e.g. Farmers get paid a higher price for their products and middlemen are cut out of the deal so more money goes to the farmer. [2]

- (ii) Describe **two** advantages that fair trade can bring to LEDCs.
You should refer to places in your answer.

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

Level 1 ([1])

A basic response that only refers to one advantage. No place max Level 1

e.g. Fairtrade is good because farmers can sell their coffee at a fair price.

Level 2 ([2]–[3])

A limited response that may give a sound description of advantage.

Alternatively responses at this level may be unbalanced with one advantage less well described than another. One place max Level 2.

e.g. Fairtrade ensures that products like coffee in Colombia can be sold at a fair and stable price. This means that producers will always be able to cover their costs and make a profit. [2] Secondly, fair trade practices can help to empower farmers in LEDCs [3].

Level 3 ([4])

A detailed response that described two clear advantages, at least 2 places are clearly mentioned,

e.g. Fairtrade ensures that products like coffee in Colombia can be sold at a fair and stable price. This means that producers will always be able to cover their costs and make a profit. Secondly, fair trade practices can help to empower farmers in LEDCs like Kenya as they can get better prices as part of a co-operative. [4]

- (e) Describe **one** appropriate technology product you have studied and evaluate its success.

No mark for identifying the appropriate technology product but it must be clearly stated and referenced for Level 3. Most will describe either the Hippo water roller, solar cooker, fishing boats, bore holes or fog catchers to harvest rain.

Award [0] for an answer not worthy of credit.

Level 1 ([1]–[2])

A basic response relating to one appropriate technology product.

e.g. The hippo roller is used to provide water for poor people [1]. Instead of carrying water – water can be rolled in a barrel. [2]

Level 2 ([3]–[5])

A limited description with some basic discussion of the success of the appropriate technology product.

e.g. The hippo roller was invented in 1991 by two South Africans. The roller is made up of a 90 litre plastic water carrier that is rolled using a metal handle – taking away the effort of carrying water long distance [3]. Each roller is equal to 5 buckets of water and is made of thick plastic that should last up to 10 years [4]. [5]

Level 3 ([6]–[7])

A detailed description of the appropriate technology product with a thorough evaluation of the success of the product which addresses both advantages and disadvantages. Final mark for overall judgement.

e.g. The hippo roller was invented in 1991 by two South Africans. The roller is made up of a 90 litre plastic water carrier that is rolled using a metal handle – taking away the effort of carrying water long distance. Each roller is equal to 5 buckets of water and is made of thick plastic that should last up to 10 years. The design is free from maintenance and should survive daily use. The drum only weighs 10 kg when rolled on the ground. However, the cost of each roller is \$125 which is still too expensive for most people in LEDCs to buy. Also, women and children still need to walk long distances to get the water from wells and rivers [6]. Overall, the hippo roller can make a difference if a family can find a charity or NGO to help buy the roller [7]. [7]

**AVAILABLE
MARKS**

25

- 4 (a) Study **Fig 4** which shows information about one family's carbon footprint. Answer the questions which follow.

- (i) Using **Fig 4**, name the source which contributes the most to this family's carbon footprint.

Home

[1]

- (ii) Outline how **food** could add to this family's carbon footprint.

Award [1] for a basic statement which may focus mainly on the food source,
e.g. The family may not be eating locally produced foods/or the family may be eating lots of imported foods

Award [2] for a sound response linking food to the carbon footprint,
e.g. The family are eating foods which are not locally produced but have been transported from far away and so the fuel used to import them produces more carbon.

[2]

- (iii) This family is producing 19.6 tonnes of carbon compared to the UK government's target of 10.5 tonnes of carbon for a family of this size.

Explain how this family's carbon footprint is contributing to climate change.

Award [0] for a response not worthy of credit e.g. simply quoting from the pie chart.

Award [1] for a basic response which may only refer to the figures in the statement,
e.g. The family is producing nearly twice the amount of carbon compared to the government target.

Award [2] for a limited explanation,
e.g. The family is producing nearly twice the amount of carbon compared to the government target which means they are producing more carbon which will add to the greenhouse effect or climate change.

Award [3] for a detailed explanation which refers to climate change,
e.g. The family is producing nearly twice the amount of carbon compared to the government target which means they are producing more carbon which will mean more heat is trapped in the atmosphere [the greenhouse effect] adding to climate change.

[3]

- (b) Study **Fig. 5** which shows two effects of climate change. Answer the questions which follow.

- (i) Match the correct word provided below to each photograph.

Crop failure = Effect on the Economy

Ice sheet melt = Effect on the Environment

Award [0] for a response not worthy of credit,
e.g. not using terms supplied or only one answer correct.
e.g. only one answer is given.
Award one mark for both answers being correct.

[1]

- (ii) With reference to places for illustration, evaluate the effects of climate change on people.

Award [0] for a response not worthy of credit.
Maximum Level 1 for no named places.

Level 1 ([1])

A basic statement relating to the effects of climate change with no reference to places,
e.g. floods will increase/or there will be more droughts so crops will not grow/or there will be water shortages.

Level 2 ([2]–[3])

A limited response which refers to the effects of climate change with reference to places; One place max Level 2
e.g. Agriculture in some areas will benefit from climate changes; in MEDCs such as the UK new crops (such as grapes and sweetcorn) will be able to grow [2] as temperatures rise, bringing higher incomes for farmers. [3]

Level 3 ([4]–[5])

A detailed response covering both positive and negative effects on people with named places for [4] and a brief overall judgement as a conclusion for [5],
e.g. Agriculture in some areas will benefit from climate change; in MEDCs such as the UK new crops will be able to grow as temperatures rise, such as grapes and sweetcorn, bringing higher incomes for farmers, but in LEDCs maize production could fall and in Pakistan crop yields could fall by 50% so that people suffer from malnutrition. [4]
Overall there could be more instability due to the change in supply of foodstuffs and MEDCs could face more pressure from refugees fleeing from floods, famine, etc in drought-stricken areas. [5] [5]

- (c) Outline **one** benefit and **one** disadvantage of a renewable energy source which you have studied.

[0] for naming the renewable energy source

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

BENEFIT

Award [1] for a basic statement of one benefit of a renewable energy source,
e.g. Wind is free.

Award [2] for a sound outline of one benefit of a renewable energy source,
e.g. Wind is free so once the turbines are installed the energy is relatively cheap. [2]

DISADVANTAGE

Award [1] for a basic statement of one disadvantage of a renewable energy source,
e.g. Wind is not reliable/wind turbines are unsightly.

Award [2] for a sound outline of one disadvantage of a renewable energy source,
e.g. Wind energy is not reliable as wind strength can vary so much so other types of energy are required as a back-up. [2]

- (d) (i) **Table 4** lists how a tourist may behave when visiting another country.

Complete **Table 4** by using a tick (✓) to show three ways a tourist could behave in a responsible way when visiting another country.

Table 4

How a tourist may may behave when visiting another country	Tick if this person is a responsible tourist
Buys imported food in a hotel	
Learns some phrases such as 'please' and 'thank you' in the local language	✓
Follows the local dress code	✓
Takes photographs without asking permission from the local people	
Buys locally-made handicrafts as souvenirs	✓

If 4 statements ticked with three correct, award 2 marks

If 5 statements ticked award 1 mark

(3 × [1])

[3]

- (ii) Assess how ecotourism protects the environment in an area you have studied.

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

Maximum Level 1 if there is no named place (either LEDC or MEDC).

Level 1 ([1]–[2])

A basic response outlining one way ecotourism can protect the environment,

e.g. Forest reserves were created [1] so trees are no longer cut down [2].

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

Level 2 ([3]–[4])

A limited response assessing how ecotourism can protect the environment is explained with limited reference to a named case study, e.g. Local people live in the forest reserve near Daran in S. Turkey but they no longer cut down the trees for farming and timber. Tourists come and visit the forests which provides income instead of deforestation so the trees and wildlife are protected.

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

Level 3 ([5]–[6])

A detailed response assessing how ecotourism protects the environment with detailed reference to a named case study e.g. Local people live in the forest reserve near Daran in S. Turkey but they no longer cut down the trees for cereal farming or pasture for the animals or to sell timber. Only a small section of forest has been cleared for tourists to access the area easily so they can enjoy the variety of animals and birds living in the forest. As the tourists stay in local village houses, the income helps local people so that deforestation is prevented, but this only occurs in 4 selected areas of Turkey where local people are beginning to see the economic benefits to themselves from protecting the precious resource of their forest environment.

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

Total**AVAILABLE
MARKS**

25

100