



Rewarding Learning

General Certificate of Secondary Education
January 2019

Geography

Unit 1:
Understanding Our Natural World

Higher Tier

[GGG12]

MONDAY 14 JANUARY, 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. 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 skillfully 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.

Theme A: The Dynamic Landscape

**AVAILABLE
MARKS**

1 (a) Study the Ordnance Survey map extract of Lyme Regis, England. Answer the questions which follow.

(i) Name **one** river found on the Ordnance Survey map extract.

River Char or River Winniford or River Lim [1]

(ii) State the height of the land at its highest point in grid square GR 3694

94 metres [1]

(iii) Name **two** ways to display height on a map

Contours and colour (layer colouring), accept triangulation pillar and spot height [2]

(iv) State the direction of the Coast Heritage Centre (GR 3692) from Virtle Rock (GR 3391)

North-East [1]

(v) State the straight line distance from the Golf course (GR348937) to the Communications mast at (GR405945)

Award [2] for 5.5–5.8 km (Ans = 5.65 km)

Award [1] for 5.2–5.49 km or 5.81 – 6.09 km [2]

(vi) Many holidaymakers visit this area. State **three** pieces of evidence to show this is a tourist area.

Any **three** valid examples,
e.g. caravan parks, Aquarium, picnic sites, beaches, forests,
golf course, etc. [3]

(b) (i) Name the type of graph shown in **Fig. 1**?

Scattergraph [1]

(ii) Plot the information below on **Fig. 1**

Distance downstream = 12 km	Load size = 5 cm
------------------------------------	-------------------------

Award [1] for accurate mark for distance downstream (12 km)
Award [1] accurate mark for bedload size = 5 cm [2]

(iii) Describe the trend shown in **Fig. 1**

Level 1 ([1])

A simple correct statement regarding the graph or bed load change in general, e.g. The load gets smaller.

Level 2 ([2]–[3])

A correct statement and elaboration that relates to this graph. For [2] It must contain at least one figure on size. The load gets smaller, it starts large and then reduces to around 3 cm. For [3] it must contain at least two figures on size.

Level 3 ([4])

A correct statement regarding trend, referring to at least three figures on size and recognising that it shows a negative correlation, e.g. The load gets smaller, it starts large at 21 cm before reducing to around 10 cm before reducing to 3 cm. Overall this displays a negative correlation. [4]

- (iv) State and explain **one** cause of the change in load size is shown in **Fig. 1**.

Accept any valid explanation (abrasion or attrition)

Award [1] for a brief statement,
e.g. the stones get eroded

Award [2] for a statement with some explanation,
e.g. The stones get eroded as they crash into one another

Award [3] for a statement that fully explains the erosion process,
e.g. As the stones move downstream they collide with one another. This collision breaks the stones up and they become smaller in size. This is called attrition. [3]

- (c) (i) State **three** characteristics of a river near its source as shown in **Photograph 1**

Any **three** correct statements, e.g.

The river is narrow

The river is shallow

The stones are large/big

The stones are jagged/pointy/angular

The discharge is low

The velocity is low

(3 x [1])

[3]

- (ii) Explain **one** way a river transports its load downstream.

Award [1] for a brief statement,
e.g. they get rolled/bounced downstream

Award [2] for a statement with some explanation.
e.g. they get rolled/bounced downstream. This is called traction/saltation.

Award [3] for a statement that fully explains the transportation process linking it to discharge or velocity,
e.g. During times of high velocity/discharge the bedload get rolled/bounced downstream. This is called traction/saltation. [3]

- (d) For a named river within the British Isles describe **two** physical causes of flooding.

Award [0] for a response not worthy of credit e.g. human causes mentioned

Note: no mark for name of river in the British Isles.

Max **Level 1** if the river named is outside British Isles or there is no named river

Level 1 ([1])

One simple cause of a river flooding is stated or described, but without explanation,
e.g. It flooded in England due to heavy rain or snow melt.

Level 2 ([2]–[3])

The causes of flooding are described and some explanation is included or one case is done in detail with fact/figure and one is done partially, e.g. One physical cause on the River Derwent was the heavy rainfall at the time of the flood. 250 mm of rainfall fell over a 2 week period. This caused the river to burst its banks and flood the area. [2] A second cause is snow melt which occurred at this time of the year.

Level 3 ([4])

The physical causes of flooding are described in detail with full explanations for the full [4] including two facts or figures relating to a river within the British Isles,

e.g. In March 1999 people near the River Derwent experienced severe flooding. There were several physical causes such as the heavy rainfall, at the time of the flood over 250 mm of rain fell over a 2 week period. This caused the river to burst its banks. A second cause is snowmelt from the North Yorkshire Moors at this time. This extra water moved quickly to the river increasing its discharge causing flooding. [4]

- (e) For a named river outside the British Isles, evaluate the extent to which river management strategies used on this river can be considered sustainable.

Award [0] for a response not worthy of credit or e.g. a coastal strategy.

Note: no mark for name of river. Max **Level 1** if UK river.

Level 1 ([1]–[2])

Candidates provide a limited factual account of strategies used on a named river outside the British Isles,

e.g. levees were built along stretches of the Mississippi and meanders were straightened. Alternatively, the candidate may simply provide a factual account of strategies with no reference to his or her chosen case study.

Level 2 ([3]–[5])

Candidates provide an account of strategies used on a named river outside the British Isles with limited evaluation of the extent to which the strategies can be considered sustainable,

e.g. They have tried to control the Mississippi by building or strengthening levees and straightening meanders. Major flooding in 1993 shows this strategy has not worked. One method in good detail with fact/figs and evaluation max **Level 2**. [5]

Level 3 ([6]–[8])

Need 2 facts/figures/places named for 7 marks. Candidates provide detailed information about river management strategies used on a river outside the British Isles. There is clear evaluation of the extent to which the strategy is sustainable.

e.g. The Mississippi River in the USA has been managed for over 100 years to improve navigation and prevent flooding. The levees were raised to 15 metres along 3000 km of the river and meanders were straightened over a 1750 km stretch but these strategies are very expensive and require regular maintenance. Such strategies are unsustainable due to cost and environmental problems. Recently the US Conservation Service has spent \$25 million buying farmland prone to flooding and converting it to natural conditions which do not require any maintenance and have no obvious negative environmental impacts. [7] This is much more sustainable than the

levees. Overall hard engineering methods work better to give extra protection and reliability than soft engineering methods. (or vice versa) Some element of judgement needed for top **Level 3**. [8]

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 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 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 with adeptly and with precision. [4]

(f) Many processes operate along our coastlines. Study **Fig. 2** which shows one of these processes. Answer the questions which follow.

(i) Name the process shown in **Fig. 2**

Longshore Drift [1]

(ii) Describe **one** other process which operates on the coastline.

Can choose erosion or deposition

Award [1] for a simple statement,
e.g. the waves erode our coastline,
e.g. waves deposit material on the beach

Award [2] for a statement with some description,
e.g. the waves erode our coastline. As the waves strike the coastline they attack the weakest part of the cliff and they begin to erode and break it down, or the waves deposit material on the beach.
e.g. as the waves approach the coastline they sometimes lose energy and deposit the load on the beach [2]

- (g) Study **Photograph 2** which shows a coastal defence engineering method. Answer the question which follows.

Name this method of coastal protection and describe how it works.

Award [1] for correctly identifying the method of coastal protection – sea wall/curved sea wall

Award [2] for a basic description,
e.g. sea walls stop erosion

Award [3] for a more detailed answer of how sea walls work,
e.g. sea walls protect the built environment by deflecting wave energy back out to the sea and can help to keep the sea out. [3]

- (h) Study **Photograph 3** which shows a wave cut platform. Answer the question which follows.

Explain the formation of a wave cut platform.

Level 1 ([1]–[2])

A simple correct statement about wave-cut platform formation or description of the feature,

e.g. They are formed by erosion [1], they are flat areas in front of cliffs formed by erosion.

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])

A partial explanation relating to wave-cut platform formation,

e.g. They are formed by erosion. Destructive waves attack the base of the cliff and form a wave cut notch [3]. This notch grows due to further erosion and eventually the cliff/rock above will collapse.

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])

A full explanation of how a wave-cut platform is formed, noting process of erosion, notch undercutting and repetition to create the flat area of the platform,

e.g. It is caused by erosion when a notch is firstly created by erosion, mostly abrasion and hydraulic action. The upper cliff is undercut and eventually collapses. [5] This process is repeated to create a flat exposed area of rock at the base of a cliff only visible at low tide, called the wave-cut platform.

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. 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]

Theme B: Our Changing Weather and Climate

AVAILABLE MARKS

- 2 (a) Study **Table 1** which shows images of two weather recording instruments. Answer the questions which follow.
- (i) Complete **Table 1** by inserting the correct answers in the blank spaces. Award [1] each for each correct response.

Table 1

IMAGE OF THE INSTRUMENT	NAME OF INSTRUMENT	WEATHER ELEMENT MEASURED	UNITS OF MEASUREMENT
 <p>© VladisChern / Getty Images</p>	<div style="border: 2px solid black; padding: 5px; text-align: center;"> Thermometer </div>	<p>Temperature (given)</p>	<div style="border: 2px solid black; padding: 5px; text-align: center;"> °C or °F </div>
 <p>© CCEA</p>	<p>Anemometer (given)</p>	<div style="border: 2px solid black; padding: 5px; text-align: center;"> Wind speed NOT Wind </div>	<p>Knots (given)</p>

(3 × [1])

[3]

- (ii) Explain how a wind vane works.

Award [0] for a response not worthy of credit

Level 1 ([1])

A simple statement relating to how it works, e.g. it spins around when the wind blows.

Level 2 ([2])

A more detailed statement that indicates how a weather vane works, e.g. as the wind vane turns the pointer or arrow will indicate the direction of the wind.

Level 3 ([3])

A very detailed statement that indicates how a weather vane works, e.g. the wind vane has a pointer/arrow that can spin around. The arrow points into the direction the wind came from using the compass below. [3]

(b) Study **Fig. 3** which shows the direction in which an air mass moves towards the British Isles. Answer the questions which follow.

(i)

Award [1] for arrow coming from the SW

© CCEA [1]

(ii) Complete the following sentence by underlining the correct word to describe the moisture characteristics of a Tropical Maritime air mass.

A Tropical Maritime air mass is wet/dry. [1]

(iii) State the meaning of the term **air mass**.

Award [1] for a simple definition,
e.g. It is a body of air.

Award [2] for a detailed definition,
e.g. An air mass is a body of air which takes on the moisture and temperature characteristics of the area in which it is situated. [2]

(iv) Describe and explain the characteristics of a Polar Continental air mass

Level 1 [1] for a simple description or explanation,
e.g. it is cold, or it is dry.

Level 2 [2]–[3] for a partial description or explanation (covering temperature/moisture),
e.g. it is cold as it comes from the cold polar north [2] or it is dry as it doesn't pick up moisture from the continent. [2]
it is cold as it comes from the cold polar north and it is a dry air mass [3].

Level 3 [4]

A full description and explanation of both temperature and moisture characteristics,
e.g. it is cold as it comes from the cold polar north. It is a dry air mass as it doesn't pick up any moisture from the dry continent of Europe. [4]

(c) Study **Fig. 4** which shows a cross section through a weather system. Answer the questions which follow.

(i) Name the weather front at A.

Cold front

[1]

(ii) Describe how temperature will change as the depression passes point **X** on Fig. 4.

Award [1] for a very simple statement,
e.g. it gets warmer.

Award [2] for a statement with some development,
e.g. it gets warmer as there is warm air present in the warm sector.

Award [3] for a detailed answer which makes reference to the named air mass,
e.g. it gets warmer as the warm sector moves over. Temperature will then decrease as the cold front passes. [3]

(d) With reference to a named country that you have studied, evaluate the likely effects of climate change on the society and economy of that country.

Name of country (The country may be a MEDC or LEDC) (no mark).

At least two effects – one positive and one negative – should be discussed for society and economy.

Answers that only refer to one effect of climate change – award max low Level 2.

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

Level 1 ([1]–[2])

Simple statements of effect which may only be positive or negative, e.g. it will get warmer/wetter [1] so more crops can grow [2]

Level 2 ([3]–[5])

Statements with consequences which are both positive and negative, one fact/fig needed for Top **Level 2**,

e.g. it will be warmer and so there will be higher yields of crops in the UK and it will be warmer and so there will be more pests and diseases. [3]

e.g. it will be warmer and so there will be higher yields of crops in the UK and it will be warmer and so there will be more tropical pests and diseases which may affect humans. [4]. It will be warmer and so there will be higher yields of crops such as maize, grapes and tomatoes grown in Southern England. This will increase profits for farmers however it will be warmer so more tropical pests and diseases may affect humans. [5]

Level 3 ([6]–[7])

For top **Level 3** an answer which addresses all aspects of the question with good geographical detail and includes at least two fact/figures relating to the country named. Some judgement or conclusion needed for full evaluation, e.g. One benefit of climate change to the UK is that the temperatures will increase. This warmth will enable farmers to earn more income by producing higher yields of crops such as maize, grapes or sugar beets in SE England. However, the extra warmth could bring more pests and diseases such as

aphids and mites. These could attack crops, lowering farmer's income or malaria could increase due to the spread north of mosquitoes. However, more warm weather will increase tourism as people will holiday in the UK and these tourists will spend money earning more money for tourist resorts, such as Blackpool [6]. However, overall there could be more benefits to the economy but negative effects in the environment. [7]

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 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 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 with adeptly and with precision. [4]

Theme C: The Restless Earth

AVAILABLE
MARKS

3 (a) Study **Fig. 5** which shows plate movement in Iceland. Answer the questions which follow.

(i) State the number of volcanoes shown in **Fig. 5**.

8 volcanoes [1]

(ii) State the type of plate boundary shown in **Fig. 5**.

Constructive [1]

(iii) Explain why plates move.

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

Level 1 [1] a simple reason,
e.g. because they sit on the mantle.

Level 2 [2]–[3] a more detailed, but incomplete explanation,
e.g. because they sit on the mantle which is moving as it is heated by the core

Magma rises from the core as it is light. It then cools close to the crust before sinking back down to the Earth's core. This constant movement makes the plates unstable.

Level 3 [4] a full explanation,
e.g. tectonic plates sit on the mantle, which moves as the magma rises from the core, cools close to the crust then sinks back down to the Earth's core. This creates convection currents which cause the plates to move. [4]

(b) Study **Fig. 6** which shows the layers of the Earth. Answer the questions which follow.

(i) Identify the layer of the Earth labelled **1** on **Fig. 6**

Accept core or inner core [1]

(ii) Choose any other layer of the Earth on **Fig. 6** (labelled 2 or 3) and describe **one** characteristic of this layer in detail.

Chosen layer (can choose **mantle** or **crust**) – no mark available

Award [1] for a simple statement,
e.g. the crust is the thinnest part of the Earth.

Award [2] for a statement and fact,
e.g. the crust has the thinnest layer in the Earth. It ranges from 50–200 km. [2]

(c) Study **Fig. 7** which shows the damage an earthquake can cause. Answer the questions which follow.

(i) Name the scale which records earthquake magnitude.

Richter Scale [1]

(ii) State the magnitude of the earthquake which causes slight damage to buildings. Credit any figure in the range listed.

5.5 to 6.0 [1]

(iii) State the meaning of the term **earthquake**.

Award [1] for a basic definition,
e.g. when the ground shakes violently.

Award [2] for a detailed definition,
e.g. when two plates move there is a sudden release of pressure.
This causes the ground to move violently. [2]

(d) For a named earthquake within the British Isles, explain the cause and describe **two** of its impacts.

Name an earthquake, e.g. Market Rasen in Lincolnshire. (no mark)

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

Accept valid alternative answers.

NB Maximum **Level 1** if no named place or earthquake is located outside British Isles.

Level 1 ([1]–[2])

A simple statement relating to the cause and/or impact,
e.g. the rocks moved/a fault occurred in the rocks [1] or some parts of buildings collapsed/people were hurt.
e.g. the rocks moved because stress had built up at a fault and was suddenly released.

Level 2 ([3]–[4])

A sound statement relating to both cause and impact, one maybe done in greater detail than the other,
e.g. the rocks moved because stress had built up at a fault and was suddenly released. A man was injured when a chimney fell upon him. [3] A church was also damaged quite badly during the earthquake.

Level 3 ([5]–[6])

A detailed statement which fully explains both cause and impacts with fact/figures relating to the named earthquake,
e.g. the rocks moved because stress had built up at an old strike-slip fault and was suddenly released at 1.10 am. These seismic waves caused one person to be hurt when a chimneys/roofs of houses collapsed. [5] The old church in Market Rasen is a Grade II listed building and a stone cross fell, causing £10 000 worth of damage. [6]

- (e) For an earthquake in a MEDC which you have studied, evaluate the success of the precautions put in place before the earthquake happened. Refer to two precautions in your answer.

Note: no mark for name of MEDC.

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

Award a max of low **Level 2** [3] for good description with no evaluation.

Level 1 ([1]–[2])

Simple statements outlining at least two precautions for top Level one, e.g. Water was stored in underground cisterns and there were earthquake drills so people knew what to do.

Level 2 ([3]–[4])

Some description of at least two precautions and either how they were successful or did not work, e.g. to reduce loss of life, e.g. Earthquake drills took place so that people knew what to do when an earthquake happened, such as have a kit ready with a bucket to put out fires, a torch and head protection to keep people safe. There were also buildings constructed to withstand earthquakes by having cross beams, springs and rubber pads to absorb the shaking so that the buildings did not collapse and kill people.

Level 3 ([5]–[6])

Good descriptions of at least two precautions and discussion of both how they were successful and some reference to their limitations with knowledge shown by at least two specific facts/places related to the named earthquake for top **Level 3**. Some judgement or conclusion needed for full evaluation, e.g. Earthquake drills took place every 1st September in Kobe so that people knew what to do when an earthquake happened, such as have a kit ready with a bucket to put out fires, a torch and head protection to keep people safe. There were also buildings constructed to withstand earthquakes by having cross beams, springs and rubber pads to absorb the shaking, so that they did not collapse and kill people. However, despite these precautions, many buildings collapsed, 5 500 people died and 40 000 were injured in the Kobe earthquake of 1995. [6]

Total

**AVAILABLE
MARKS**

25

108