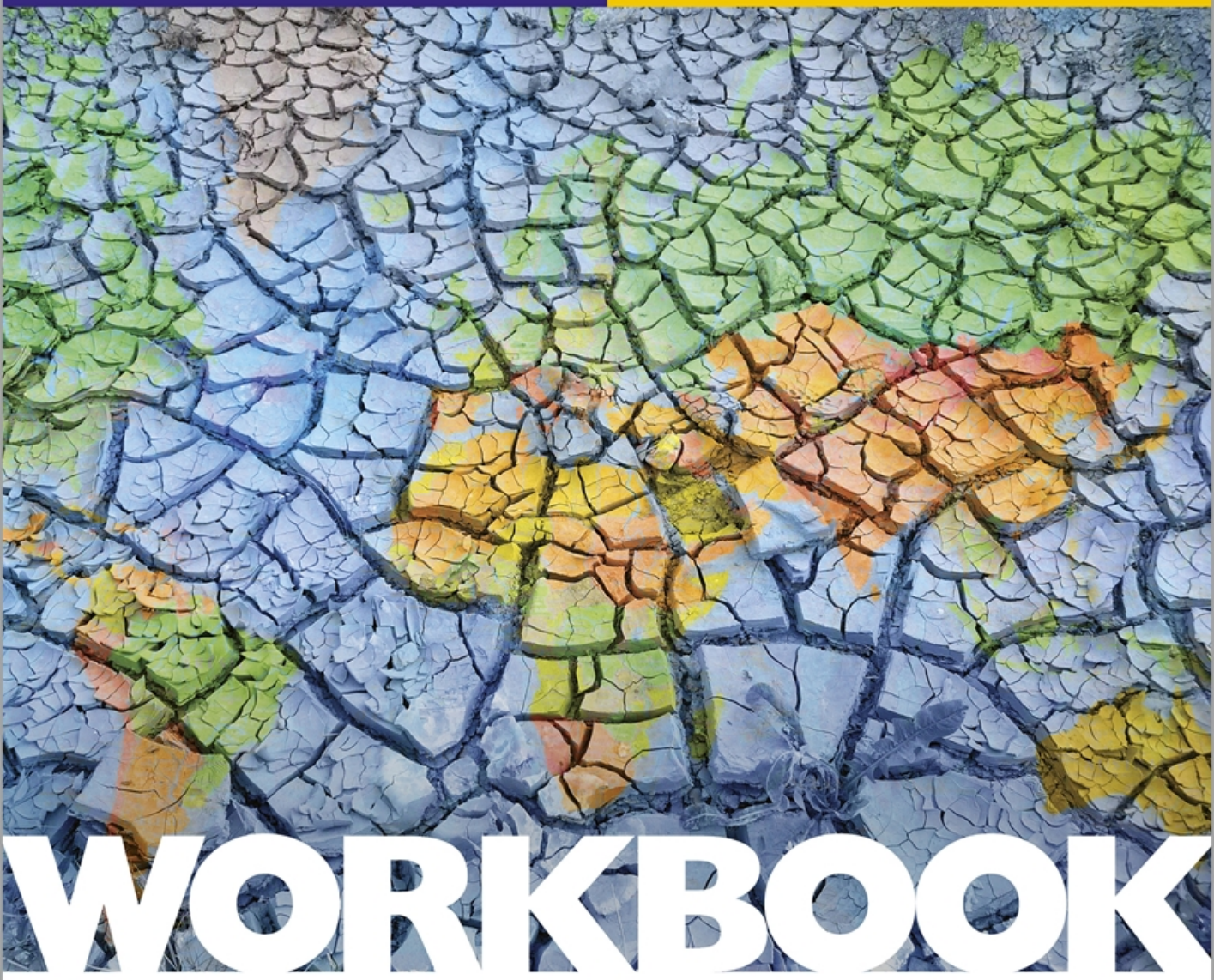
AQA GCSE (9-1)



WORKBOOK

Geography

Practise your exam skills • Answer questions confidently • Improve your grade

Andy Owen

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Contents

Introduction: What is assessed on each paper?

Figure 1 shows what is assessed on each of the three exam papers. There are some options in Paper 1 and Paper 2. Make sure you know which ones you have covered.

Paper 1 Living with the physical environment — **Time allowed: 1 hour 30 minutes**

Section	Marks	What are questions about?	
A	33	1. The challenge of natural hazards	Answer **all** questions
B	25	2. The living world	Answer **all** questions
C	30	Physical landscapes in the UK	Answer **two** questions

Tick **two** topics you studied.

3. Coastal landscapes in the UK	
4. River landscapes in the UK	
5. Glacial landscapes in the UK	

Paper 2 Challenges in the human environment — **Time allowed: 1 hour 30 minutes**

Section	Marks	What are questions about?	
A	33	1. Urban issues and challenges	Answer **all** questions
B	30	2. The changing economic world	Answer **all** questions
C	25	3. The challenge of resource management	Answer question 3 and **one** other

Tick **one** topic you studied.

4. Food	
5. Water	
6. Energy	

Paper 3 Geographical applications — **Time allowed: 1 hour 30 minutes**

Section	Marks	What are questions about?	
A	37	Issue evaluation	Answer **all** questions
B	39	Fieldwork	Answer **all** questions

Figure 1 What each exam paper assesses

Chapter 1: How Geography is assessed in Papers 1 and 2

This chapter is about how GCSE Geography is assessed in Papers 1 and 2. It will cover:

- what the exam questions mean
- how to tackle questions that use graphs, maps and photos
- how to answer questions worth 6 and 9 marks.

Understanding exam questions

Papers 1 and 2 have a variety of questions designed to test your ability as a geographer. It's important you understand what each question is asking you to do:

- **Command words** are words such as 'Assess' or 'Explain'. The command word tells you what you must do when you write your response. Common command words used in Paper 1 and Paper 2 are given in **Figure 1.2**.
- The **tariff** is the number of marks that are available for each question. These marks are shown at the end of the space where you put your answer. Use the number of lines printed on the exam paper as a guide to how much you should write.
- The **assessment objective (AO)** is what the examiner is looking for in your response. There are four AOs. They are described in **Figure 1.1**. Some questions assess only AO1 or AO4. These questions have a low tariff. Other questions assess a combination of AOs. These questions have 4, 6 or 9 marks. You will need to read these questions very carefully to understand what the examiner is looking for.

In Paper 1 and Paper 2 you have about one minute for each mark. Spend about ten minutes on a 9-mark question. Don't write a lot for a 1- or 2-mark question.

Figure 1.1 The assessment objectives (AOs)

	What the examiner is looking for	Typical command word
AO1	Your ability to remember geographical facts	Describe, Give, Outline, State
AO2	Whether you understand geographical concepts and processes	Explain, Give one reason, Outline one reason
AO3	Whether you can evaluate evidence or use evidence to make a decision	Assess, Discuss, Suggest, To what extent?
AO4	Your skill when you use maps and graphs or make calculations	Describe, Calculate, Give, State

Read the question carefully

It is essential to do what the command word asks you to do. If the command is 'assess' or 'to what extent?' then you must do some evaluation or make a judgement. **Figure 1.2** lists common command words and explains what they mean.

BUG the question! Sometimes candidates seem to write everything they know about a subject, without actually answering the question! To avoid this, BUG the question:

Bold the command word.

Underline other important instructions.

***Glance* back at the question to make sure you are actually answering it!**

Figure 1.2 Command words that could be used in Paper 1 and Paper 2

Tariff	Command word	What you need to do	Example
1, 2, 3	Calculate	Work out the value of something.	**Calculate** the mean shown in Figure 1. Show your working. 2 marks
	Describe	Give a brief account of something.	**Describe** the distribution of countries shown in Figure 1. 2 marks
	Give	Make a short, simple statement.	**Give** one reason why tropical regions have high temperatures throughout the year. 1 mark
	Identify	Name a feature.	Using Figure 1, **identify** the landform marked X. 1 mark
	Outline	Give a brief account of something.	**Outline** one way in which trade has had an impact on a named LIC or NEE country. 2 marks
	State	Make a short, simple statement of fact.	**State** one physical characteristic of a tropical rainforest. 1 mark
2–4–6	Discuss	Consider the arguments that can be debated around a geographical issue.	Using Figure 1 and your own understanding, **discuss** the issues arising from the growth of major cities in LICs or NEEs. 6 marks
	Explain	Show your understanding by giving reasons.	**Explain** how waterfalls may change over time. 4 marks
	Suggest	Propose a possible solution, reason or consequence. Your suggestion should be based on geographical evidence.	Using Figure 1 and your own understanding, **suggest** how large-scale agriculture can create disadvantages for the environment. 4 marks
9	Assess	Evaluate a situation.	**Assess** the extent to which people can adapt to climate change. 9 marks
	To what extent?	Make a judgement by weighing up the arguments for and against. Make sure you give reasons for your decision.	**To what extent** have people been successful in managing traffic congestion in a major LIC or NEE city you have studied? 9 marks

Dealing with complex questions

Some questions seem to be very long and wordy. Don't panic. Break down the questions into bits to understand what the examiner wants you to do. In each question, look out for:

- the command – this is often (but not always) the first word in the question.
- instructions to use a figure – this will be a photo, map, graph or some text in the exam paper that contains useful clues. You **must** refer to the evidence provided
- instructions to use an example or case study – you should know facts about fourteen examples and five case studies. Use details from these if the question asks for them
- whether you need to write about more than one thing – for example, a question could be about economic **and** social reasons for migration. Sometimes students do the first part (economic, in this example) and forget to do the second (social) so they don't finish the question.

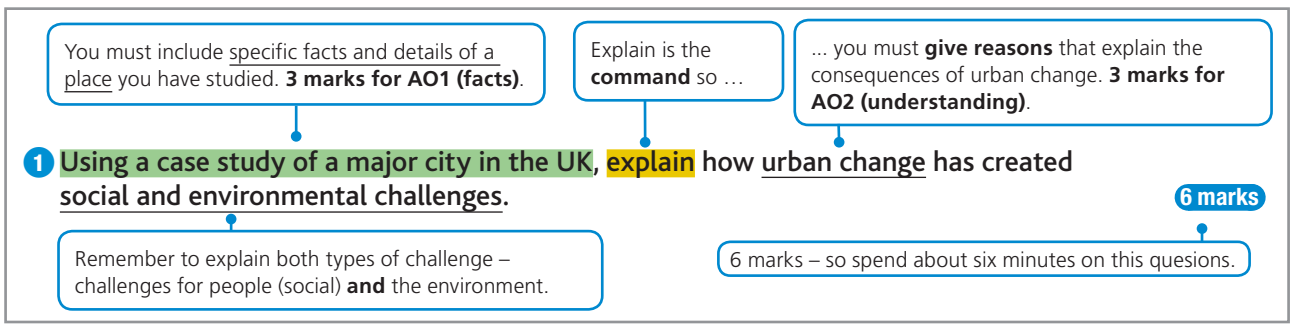


Figure 1.3 How to break down a complex question into its parts

Tackling skills questions

Papers 1 and 2 each have 19 marks that assess AO4 (skills). Most of these questions are worth 1 or 2 marks. Skills questions are about:

- using graphs
- reading maps
- doing simple calculations
- reading photos.

Using graphs

Graphs are used to present geographical data. Graph questions may ask you to:

- read a value from the graph
- complete the graph by adding a data point
- describe the shape (pattern or trend) of the graph.

Exam papers may contain a variety of graphs, including **bar charts**, **line graphs**, **climate graphs** and **scatter graphs**.

Line graphs often show a trend. Use words that describe this trend carefully. The following words are helpful:

- **Decreasing** if the values are going down. Add **slowly**, **steadily** or **rapidly**.
- **Fluctuating** if the values are wobbling up and down.
- **Increasing** if the values are going up. Add **slowly**, **steadily** or **rapidly**.

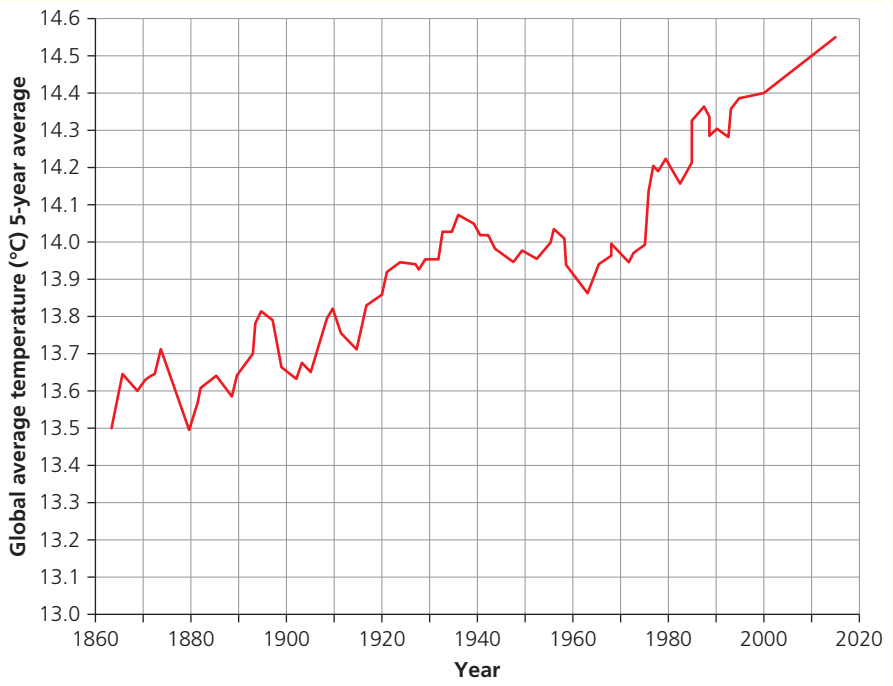


Figure 1.4 The increase in average global temperatures since 1860

1 Using **Figure 1.4**, give the temperature in:

a 1880 .....

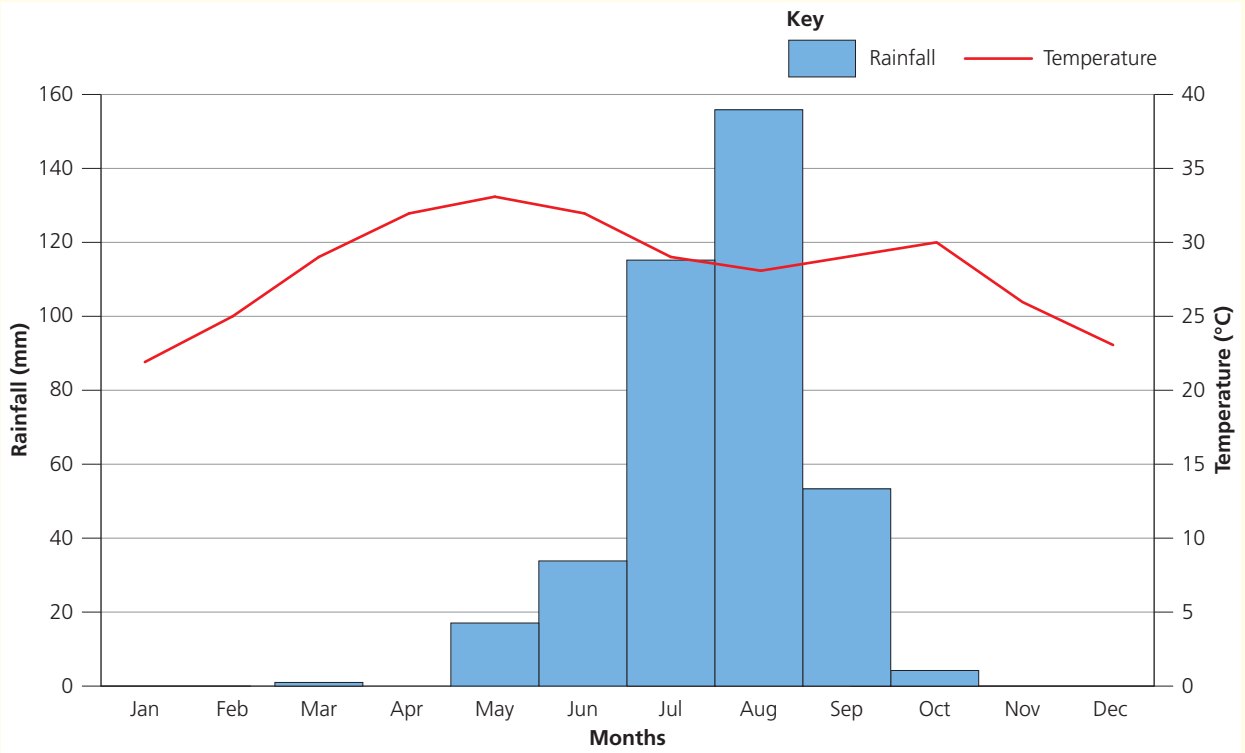
b 1990 .....

c 2000 .....

2 Using **Figure 1.4**, which **three** of the following statements are true?

- **a** Temperatures increased rapidly between 1895 and 1905. ○
- **b** Temperatures decreased steadily between 1935 and 1945. ○
- **c** Temperatures increased steadily between 1915 and 1935. ○
- **d** Temperatures fluctuated between 1990 and 2015. ○
- **e** Temperatures fluctuated between 1870 and 1900. ○

Figure 1.5 Climate graph for Zinder, Niger



3 Using **Figure 1.5**, which **three** of the following statements are true?

- **a** August has 42 mm of rainfall. ○
- **b** There is a total of about 340 mm of rainfall in the three wettest months. ○
- **c** The temperature range is about 20°C. ○
- **d** The temperature range is about 12°C. ○
- **e** The minimum temperature is in August. ○
- **f** The maximum temperature is in May. ○

Calculate the temperature **range** by finding the difference in temperature between the hottest month and the coldest month.

Reading maps

Exam papers contain a variety of styles of maps. Some, like **Figure 1.6**, show where features are located.

Features (or data values) on a map may show a pattern. If so, the question may ask you to **describe the distribution**. In your answer, you need to describe the pattern carefully. The following words are helpful:

- **Clustered:** points on a map are concentrated into small groups.
- **Linear:** features on a map are spread out along lines.
- **Random:** features are at irregular distances from each other. There is no clear pattern.
- **Regular:** features are spaced out evenly across the map.

Other types of map are also used in exam papers, including:

- **OS maps** (see pages 48–50)
- **Choropleth maps** (see page 66)
- **Isoline maps**.

Use words like **clustered**, **random** and **regular** to describe distribution. This is an opportunity to show the examiner your use of geographical vocabulary.

Figure 1.6 Tata steel factories and offices in India

4 Using **Figure 1.6**, which **one** of the following statements best describes the location of Kolkata?

- **a** Near the coast of the Bay of Bengal. ⬭
- **b** North of the Indian Ocean and east of New Delhi. ⬭
- **c** 1600 km ENE of Mumbai. ⬭
- **d** 1600 km WSW of Mumbai. ⬭

5 Using **Figure 1.6**, describe the location of Chennai.

.....

.....

Never describe somewhere as 'near to'. It's too vague. You should always use a compass direction and distance from an important point on the map.

6 Using **Figure 1.6**, describe the distribution of Tata sales offices.

.....

.....

Doing simple calculations

Some questions test your ability to process geographical data by asking you to do simple calculations. The data will be presented in the exam paper as a table, graph or map. The question will begin 'Using **Figure XX**' and will use a command word such as '**calculate**'. They are simple questions which are usually worth 1 or 2 marks. You are allowed to use a calculator to find the answer. This page looks at some common questions.

Make sure you show how you got the answer if the question says 'Show your working here'. In a 2-mark question, you may get 1 mark by showing your working, even if your answer is wrong.

Calculating averages and range

Mean: what we often think of as 'average'. To find the mean you must add up all of the values in the set of data and then divide by the number of values.

Median: to find the median value you must arrange the data in rank order. The median is the value in the middle.

Mode: the value in your set of data that occurs most frequently. It is often used with data that is sorted into categories, like the pebble sizes in **Figure 1.7**.

Range: the difference between the highest and lowest values in the set of data.

Interquartile range (IQR): the difference between values that are three-quarters and one-quarter the way through a set of data.

Study **Figure 1.7**. It shows data (the size of pebbles) collected by students at three sites along a river. **Figure 1.8** shows how you could show your working if you are asked to calculate the median or the interquartile range.

Figure 1.7 Pebble sizes (cm) at three sites along a river

Site A	14	5	3	19	8	4	2	6	15	3	12	3	7	3	9
Site B	11	4	15	2	7	1	4	3	12	8	3	1	5	2	7
Site C	6	3	1	9	3	4	1	2	6	7	2	1	4	1	5

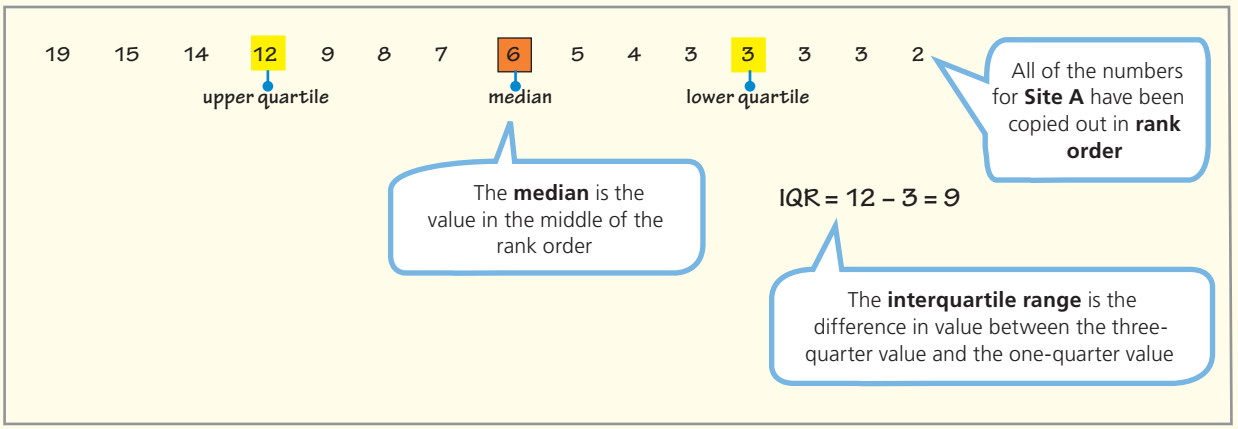


Figure 1.8 How to show your working

7 Using **Figure 1.7**, calculate the median for Site B and Site C.

a Site B .....

b Site C .....

Chapter 2: Preparing for Paper 1

Tectonic hazards

Tectonic hazards are caused by the movement of the plates that make up the Earth's crust. A small number of key geographical terms could be used in exam questions. Learn them carefully.

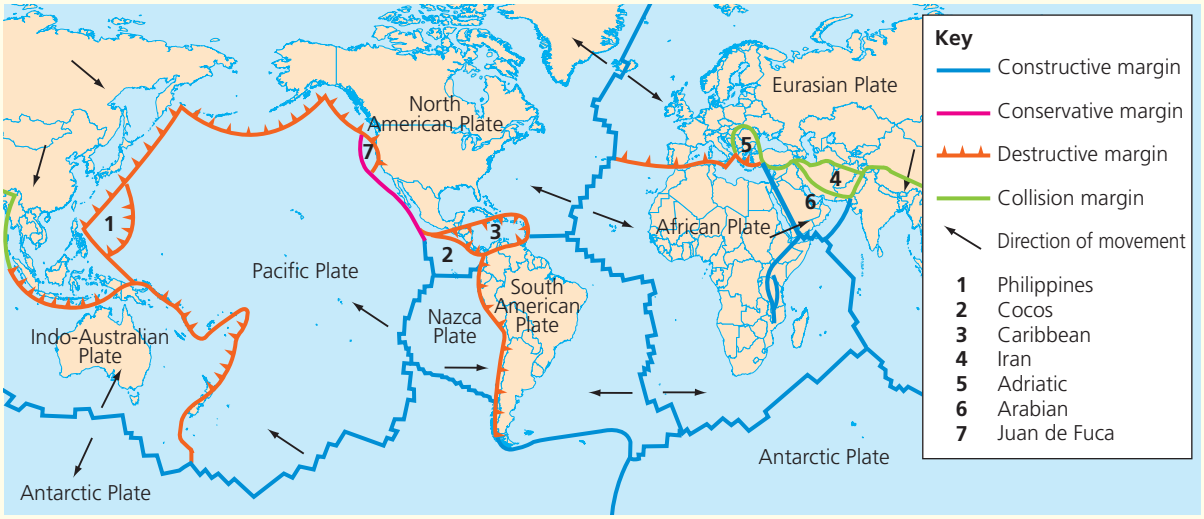
plate margins **constructive** **destructive** **conservative** **tectonic plates**

1 Match **five** key terms to the correct definition below. **Two** terms are not needed.

plate margins **transnational** **constructive** **destructive**
conservative **tectonic plates** **seismometer**

Term	Definition
	Rigid sections of the Earth's crust.
	Places where the Earth's plates meet each other.
	Plate margins where plates are moving towards one another.
	Plate margins where plates are moving away from one another.
	Plate margins where plates are sliding past one another.

Figure 2.1 The Earth's plate margins



2 Using **Figure 2.1**, which **three** of the following statements are true?

- **a** The Nazca Plate is being destroyed beneath the South American Plate. ⬭
- **b** There is a conservative plate margin on the eastern side of the North American Plate. ⬭
- **c** The western Pacific Plate is bordered by destructive plate margins. ⬭
- **d** There is a destructive plate margin between the South American Plate and the African Plate. ⬭
- **e** There is a constructive plate margin between the North American Plate and the Eurasian Plate. ⬭

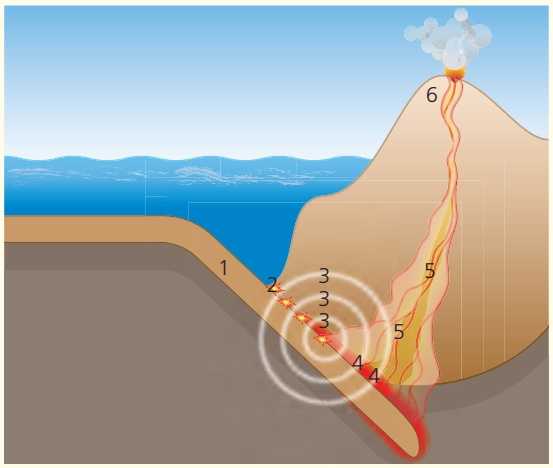


Figure 2.2 The process of subduction occurs at destructive plate boundaries

3 Using the labels in **Figure 2.2**, number each step in the following table to explain what happens as the Nazca Plate meets the South American Plate.

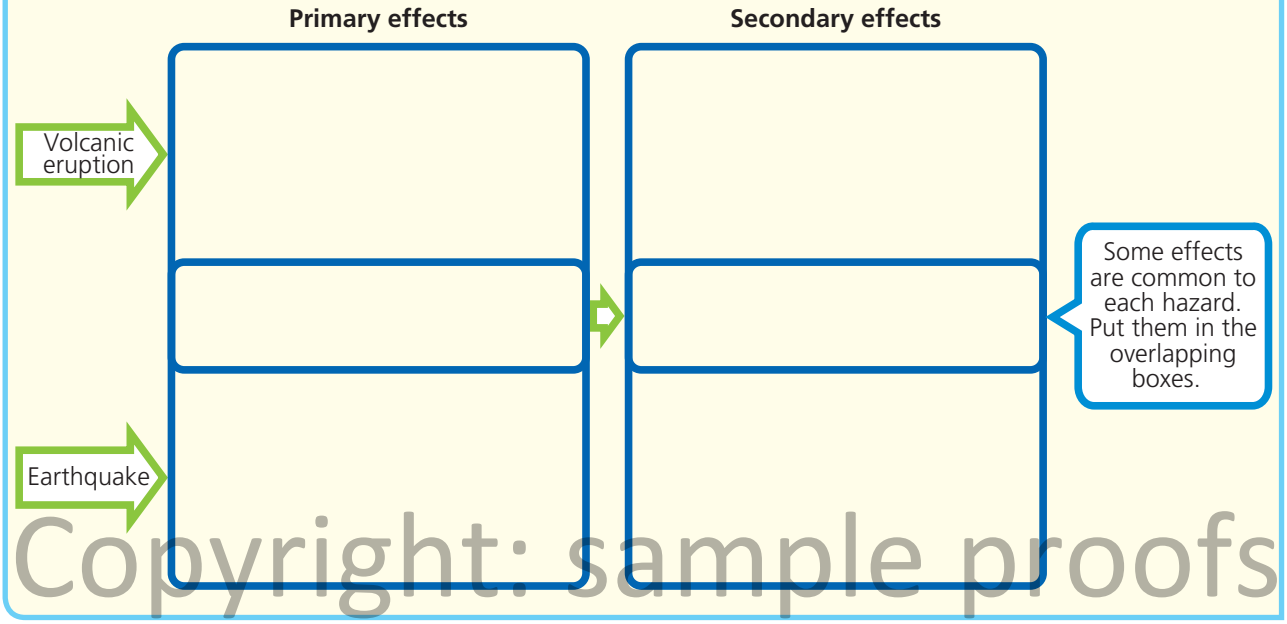
Number	Labels for Figure 2.2
	The magma reaches the surface, causing a volcanic eruption
	There is friction between the oceanic and continental plates
	Magma rises through the continental crust
	The dense Nazca Plate is pulled into the mantle
	The heat and friction cause oceanic crust and ocean floor sediment to melt
	The friction is overcome, causing an earthquake

Effects of tectonic hazards

Tectonic hazards have immediate effects on the environment and on people. These are **primary effects**. These effects can trigger further problems which may continue for weeks or months. These are **secondary effects**.

4 Study the list of possible effects of a volcanic eruption or earthquake. Decide whether these are primary effects or secondary effects by writing each letter into the correct part of the figure.

A Volcanic gases
B Lahars
C Lava flows
D Refugees
E Food prices rise
F Pyroclastic flows
G Landslides
H Ash clouds
I Travel disruption
J Crops die
K People injured
L Buildings collapse
M Shortage of water
N Disease spreads



Study **Figure 2.3**. It shows a constructive plate margin that runs through the middle of Iceland. Iceland is a wealthy country.

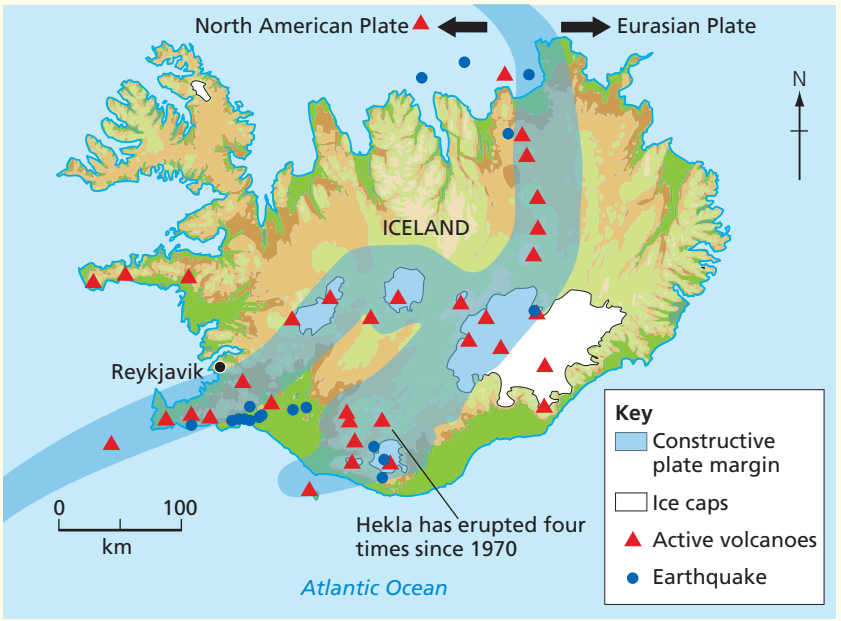


Figure 2.3 Iceland's plate margins

5 Using **Figure 2.3**, which **one** of the following statements best describes the distribution of tectonic hazards?

- **a** Regularly spaced along the constructive plate margin. ⬭
- **b** Randomly spread throughout Iceland. ⬭
- **c** Mainly arranged in a linear pattern along the constructive plate margin, with some clustered to the southeast of Reykjavik. ⬭

6 Using **Figure 2.3** and your own understanding, suggest how tectonic hazards could affect people living in Reykjavik. **6 marks**

You should refer to map evidence to support your answer. For example, you could work out the direction of the wind that would carry ash from Hekla over Reykjavik. **3 marks for AO3 (making judgements)**

Show you understand how tectonic activity creates dangerous hazards for people. **3 marks for AO2 (understanding)**

Write your answer to this question in your notebook. Use the sentence starters below to help you.

One hazard created by volcanic eruption is ash. If the wind was blowing … so … [HINT: Think about impacts on breathing in Reykjavik]. *Also, flights could be delayed … so …* [HINT: Think about the impact on imports/exports or tourism] *… so …* [HINT: Think about the impact on supermarkets or hotels in Reykjavik] *… so …* [HINT: Think about the impact on food prices and jobs].

Another hazard would be the ground shaking during earthquakes … so … [HINT: Think about the impact on buildings]. *This might have short-term impacts such as …* [HINT: Think about impacts on people's safety] *and long-term impacts such as …* [HINT: Think about repairs and the economy].

Managing tectonic hazards

Many people continue to live in areas at risk of tectonic hazards because they cannot afford to move or they think that the risks are low. We can reduce the risks of tectonic hazards through **monitoring**, **prediction**, **protection** and **planning**.

7 Match the **four** key terms to the examples below. You may use some terms more than once.

protection **monitoring** **planning** **prediction**

Term	Example
	Making regular measurements of gases emitted from a volcano.
	Using data (like earth tremors) to estimate when a volcano might erupt.
	Using seismometers to measure earth tremors.
	Designing buildings so that they flex rather than collapse during an earthquake.
	Using buoys in the ocean to measure the height of a tsunami wave.
	All emergency services know what to do in the event of an earthquake.

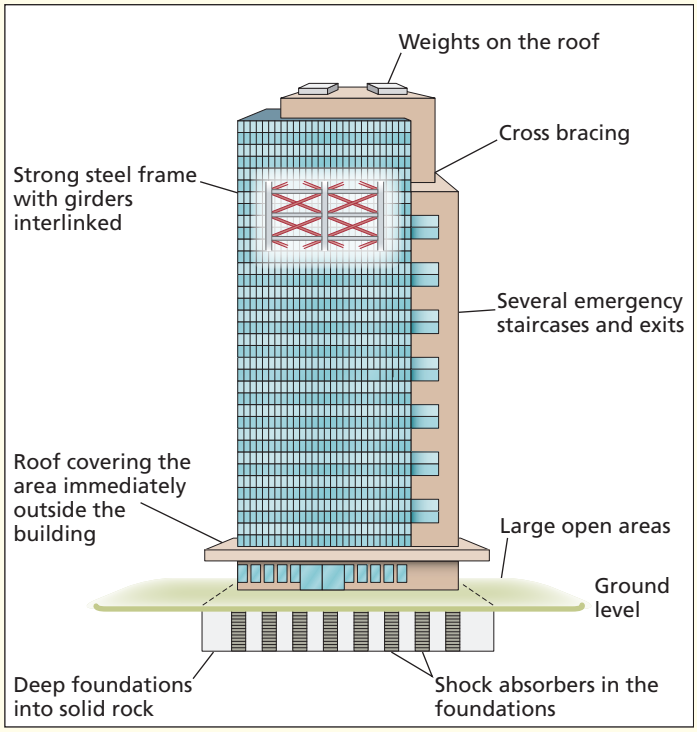


Figure 2.4 An earthquake-resistant building

Use the 'So what?' technique (pages 12–13) to explain each point. One example has been done for you.

8 Choose **two** of the labels on **Figure 2.4**. For each of these, explain how the design feature would reduce the risk. One example has been done for you.

Feature 1

A roof covers the area around the building so people are not injured by broken glass if it falls from windows.

Feature 2

Feature 3

.....

.....

9 Using **Figure 2.4** and your own understanding, suggest how useful monitoring and protection can be in reducing tectonic risks. **6 marks**

By referring to Figure 2.4 you can explain how useful protection can be.

The command means you must make a decision – is it useful or not in reducing risk? **3 marks for AO3 (decision making)**

Use an example of monitoring to explain how it works. **3 marks for AO2 (understanding)**

Examples of tectonic hazards

How much damage is caused by an earthquake or eruption depends partly on the wealth of the area affected. Wealth also affects how well people are able to respond with evacuation, aid or rebuilding programmes. Use the table below to summarise two examples. Use bullet points.

	Richer place	Poorer place
Place name		
Primary effects of the hazard	1. 2.	1. 2. List specific facts
Secondary effects of the hazard	1. 2.	1. 2.
One immediate response		E.g. rescuing people or providing shelter
One long-term response		E.g. rebuilding

10 To what extent are tectonic hazards more dangerous in poorer countries? **9 marks**

Use the 'washing line' technique (page 20) to answer this question. **3 marks for AO3 (decision making)**

Show you understand how tectonic activity creates dangerous hazards for people. **3 marks for AO2 (understanding)**

Use examples from poorer and richer countries to help prove your point. **3 marks for AO1 (facts)**

Write your answer to this question in your notebook.