



**CAMBRIDGE**  
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# Learner Guide

Cambridge IGCSE<sup>®</sup>

Geography

0460

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## How to use this guide

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The guide describes what you need to know about your Cambridge IGCSE® Geography examination.

It will help you to plan your revision programme and will explain what we are looking for.

Not all the information will be relevant to you. You will have to select what you need to cover in Sections 1 and 3 by finding out from your teacher whether you are doing Paper 3 Coursework or Paper 4 Alternative to Coursework.

The guide contains the following sections:

### Section 1: How will you be tested?

This section gives you information about the different examination papers you will take.

### Section 2: Examination advice

This section gives you advice to help you do as well as you can. Some of the ideas are general advice and some are based on the common mistakes that learners make in exams.

### Section 3: What will be tested?

This section describes the areas of knowledge, understanding and skills that we will test you on.

### Section 4: What you need to know

This shows the syllabus content so that you can check:

- which topics you need to know about
- details about each topic area in the syllabus
- how much of the syllabus you have covered.

### Section 5: Useful websites

### Section 6: Command words and phrases



## Section 1: How will you be tested?

### About the examinations

You will take three papers: two theory papers, i.e. Paper 1 and Paper 2, and one practical paper, either Paper 3 (Coursework) or Paper 4 (Alternative to Coursework).

Your teacher will be able to tell you whether you are doing coursework (Paper 3) or taking Paper 4.

If you are doing coursework, you will complete one assignment and just take Paper 1 and Paper 2 in the examination. However, if you are not doing coursework, you will take three papers in the examination, i.e. Paper 1, Paper 2 and Paper 4.

### About the theory papers

The table below gives you information about the theory papers.

Paper number	How long and how many marks?	What's in the paper?	What's the % of the total marks?
Paper 1	1 hour 45 minutes (75 marks)	You must answer three questions from six, one from each theme. There are two questions on each theme.	45%
Paper 2	1 hour 30 minutes (60 marks)	The questions test your skills in interpreting and understanding geographical information including maps. You must answer all the questions.	27.5%

Here is some more detail about each of the theory papers:

#### Paper 1

You have to answer three of the six questions available, one from each section, so that you answer one question on each of the three themes, so take your time to choose your questions carefully at the start of the examination. Each question will be based on one or more resources, which may be a photograph, a map, a sketch map, diagrams, graphs, written information or tables of data. You will be asked to analyse and use the resource/s to show your understanding of geographical ideas. It will not matter that the examples/ places used in the questions are not familiar to you, but it is important that you know and understand geographical ideas so that you can apply them to any situation. You will often need to illustrate your answer to one part of each question by referring to a relevant case study you have learnt. This paper will be in a question and answer booklet with spaces to write your answers.

#### Paper 2

This paper tests your geographical skills. You must answer all the questions, including a compulsory map-work question. You will need to use the map extract to answer specific questions about the area shown on the map. The map-work question may include the use of grid references (4 and 6 figure) and direction, distances, understanding contour lines, and interpreting physical and human features of the area. The other questions will require you to complete and use a variety of different graphs, diagrams, photographs, tables of data, etc. You will also be asked to interpret the information. You will be marked on the accuracy of your answers, so you need to make sure you go to the exam with a pencil, rubber, ruler, set square and protractor. This paper will be in a question and answer booklet with spaces to write your answers.

## About the practical papers

The remaining papers for Cambridge IGCSE Geography test your understanding and skills in a more practical way. They cover your knowledge of all three themes and test the skills you need to investigate geographical ideas. Your teacher will be able to tell you whether you will be entering for coursework, Paper 3 (one assignment written in your own time) or the alternative to coursework, Paper 4, which tests the same skills and knowledge as Paper 3 in a timed written examination.

Paper number and type	How long and how many marks?	What's involved?	What's the % of the total marks?
Paper 3 Coursework	No fixed time (60 marks)	You will complete one coursework assignment of 2000 words. You may carry out part of the investigation and collect data as a class, BUT you must then write up the investigation on your own.	27.5% (you do <b>either</b> Paper 3 <b>or</b> Paper 4)
Paper 4 Alternative to Coursework	1 hour 30 minutes (60 marks)	You will answer two questions, each based on a theoretical investigation, which test how you would carry out fieldwork. The questions will cover data collection methods, presenting data, analysing patterns in data and writing a conclusion.	27.5% (you do <b>either</b> Paper 3 <b>or</b> Paper 4)

Here is some more detail about the practical papers:

### Paper 3 Coursework

You will carry out one assignment during your geography course, which will be assessed by your teacher. Your teacher will give you marks in five different skill areas. Each skill area is marked out of 12 marks. The teacher will look for certain indicators to assess your work.

#### Skill 1: Knowledge with understanding

You will be assessed on how well you understand the geographical ideas of the investigation. You need to describe the aims of the investigation and try to explain them using geographical terms. Your teacher may suggest that you devise a hypothesis, which you then try to investigate.

#### Skill 2: Observation and data collection

You will be marked according to how well you carried out your data collection during the investigation, e.g. whether you followed your teacher's instructions carefully and with thought. You must also show some ideas of your own about data collection and observation, which go beyond those your teacher told you about.

#### Skill 3: Organisation and presentation of the results

You will also be marked on how you choose to organise and present your data, e.g. put it into graphs or display it on maps. Better presentations generally use the more varied and complicated presentation techniques. However, you should remember that the methods must be relevant and appropriate, e.g. a bar graph may be a better technique than a line graph to compare the results of traffic surveys carried out at different places.

#### Skill 4: Analysis and interpretation

You need to write down what your data means. You need to both describe the patterns that you find in the data and explain the reasons for the patterns. For example, you might write, 'the highest traffic was found

at Site X because this was the centre of the town'. If you were then to explain why the centre of the town attracted more traffic, you would be applying your geographical understanding and would be able to access the full range of marks for this skill area.

### **Skill 5: Conclusions and evaluation**

In the final section you will be assessed on how well you are able to conclude the investigation. Did you prove your hypothesis? What data or evidence did you find to support your concluding decisions? You will also be marked on how you criticise and evaluate your data collection methods. You should outline the problems you encountered when collecting the data and suggest better ways of collecting the information for a future investigation.

## **Paper 4 Alternative to Coursework**

In this written paper you will be given the outline of two theoretical investigations. Each investigation will be based on a different theme. Data collection methods which will be used in the investigations are questionnaires, observation, measuring and counts.

You may be asked to:

- formulate aims or hypotheses
- outline how data may be collected during an investigation
- plot data or complete graphs of data
- describe the patterns in the statistics or graphs provided
- explain the meaning of the graphs using your geographical understanding
- write a conclusion to a theoretical investigation
- evaluate the data collection methods used in the investigation

This paper will be in a question and answer booklet with spaces to write your answers.

**Section 1:** How will you be tested?

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## Section 2: Examination advice

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### General advice

Preparing to get a good grade begins as soon as you start your Cambridge IGCSE course. You can prepare by:

- finding out what you need to know
- organising your notes; making a list of the topics covered and relevant case studies
- knowing how your Cambridge IGCSE papers are structured and practising past questions.

### Your notes

- Read the rest of this guide carefully. Be really clear what topics you need to know then check that your notes are complete and make sense. If you need further advice, speak to your teacher who will have a full copy of the syllabus.
- Although there is a choice of questions on Paper 1, Paper 2 and Paper 4 have compulsory questions so you cannot have gaps in your notes just in case those topics come up.
- Try to produce an accurate set of notes when you do the work in the first place, but if you need to improve your notes you could:
  - Ask a friend if you can copy up work which you have missed from them – but make sure you understand it.
  - Find more information on topics you have studied, using your textbook, the library or the internet. For it to be useful make sure that you fully understand it – if not ask your teacher.
  - Buy a good revision guide.

### Revision

There are lots of different ways to revise. Some people make lists, other people use diagrams and pictures. Once you know what topics to cover, you have to work out the best way to learn them.

- Make a revision timetable and plan your revision carefully so that you have time to fit in everything you need to cover.
- Work in short concentrated spells and then have a break rather than trying to work continuously. Avoid being interrupted – don't answer the phone/read your text messages/have a look at the TV – save it for your planned break.

Do not sit looking at your notes, or just copy them out. Try to do something active, for example you could:

- draw diagrams and sketch maps, including detailed labels, highlighting the most important points using colours
- draw tables and charts to learn key ideas about the topic such as causes and effects, problems and benefits and impacts on people and the natural environment which you need to learn
- draw time lines and living graphs that help you pick out how things change and explain the reasons for the changes
- use small cards to list the main points that you need to learn, especially case studies

## Section 2: Examination advice

- use colours or highlighter pens to classify items in your notes e.g. causes/effects, long/short term effects, effects on natural environment/people etc, practise map skills using a variety of different maps – ask your teacher if you can borrow maps which have been used in previous examinations
- ask your teacher for past papers and test yourself. Study as many past papers as possible. This is not the time for you to predict questions but to find out what sort of questions come up and what they require you to do. Sometimes it is useful to practise writing out the answers under test conditions
- if your teacher hasn't explained to you how the exams are marked, ask about it. Ask if you can see questions and their mark schemes from previous examinations. Look particularly at those answers which are worth a lot of marks to discover how you can earn more marks by giving details and examples.

### Answer the questions

- Make sure you use your time carefully. For example in Paper 1 there are 75 marks available in 105 minutes, that is just under 1½ minutes per mark, but remember that includes time spent reading, thinking, choosing and planning as well as writing. It is no good writing a page if the question is only worth two marks; an answer worth two marks should take no more than 3 minutes to write. If you spend too long on questions which are not worth many marks it could mean you do not have enough time to answer the questions which are worth seven marks properly. If you do finish with time to spare, re-read and check your answers adding more facts and ideas if you can remember them.
- Read the questions carefully. When you answer questions on the paper think very carefully. Try to learn how to respond to command words like IDENTIFY, DESCRIBE, EXPLAIN and COMPARE. It is important that you answer the questions and do not fall into the trap of just writing down everything you know.
- Answer the questions in order of how confident you are – leave the one you are least confident about until last.
- Do not repeat the same answer in different sections. Questions are not set which require identical answers, if you find you are repeating an answer check that you have read the question properly.

### Paper 1 advice

- Look at the instructions on the front of the paper. You have to choose three out of the six questions, one out of two questions in each section so that you answer a question on each of the three themes.
- Do not try to answer all the questions, you will not have time to answer them properly.
- Write the answers to the questions in the spaces in the question and answer booklet provided, using this as a rough guide to the amount of detail and length of answer that is needed. If you run out of space continue the answer on the spare lined sheet at the back of the booklet. Make sure you number any continuation answers carefully and also indicate that your answer is continued on the extra page at the end of your partly-written answer.
- Look at the number of marks available for each part of a question. Do not spend too much time on one part if it is only worth one or two marks, or alternatively write only a short answer when a question is worth more marks. Timing is important, do not spend too much time on your first chosen question, otherwise you will have to rush the last question. Just in case you run out of time, if there is a question which you are not confident on, answer it last.
- Read the information given in the stem of the question carefully as well as the questions themselves.
- Wherever possible in your answers try to include relevant examples and case studies. There may be local examples which you could use in your answers.

- Where you are asked to complete an answer by labelling or drawing on a resource you must do this rather than writing an answer. If you use any extra sheets make sure that you put your name on them and attach them to your answer booklet before handing it in.
- When you are asked to use a written resource you will not be given marks for copying out sections from it. Look at the question you are being asked and try to show your understanding by answering in your own words.
- If you are asked to compare or describe the differences between two things it is no good just writing about one. You could use words like 'bigger' or 'more' to help you compare or a word like 'whereas' in the middle of your sentence (e.g. 'a constructive wave deposits material on the coast whereas a destructive wave erodes material from it').
- Try to be as precise as possible as vague statements are unlikely to get you many marks. e.g. 'A Stevenson Screen is used to get accurate readings' is far too vague. You need to give details explaining why readings are accurate when a Stevenson Screen is used (the louvres allow a free flow of air, the white surface reflects the sun's rays, it allows you to take temperatures in the shade etc).
- Make sure you know the differences between global environmental problems which you may have studied. Many people mix up global warming, ozone depletion and acid rain. You must also make sure you do not mix up causes and effects/consequences – you may be asked for one or the other so read the question carefully.

## Paper 2 advice

- This paper is testing a range of skills. Try to be as accurate as you can with measuring and plotting. Take your time, take care and always use a ruler to complete graphs and measure straight line distances.
- Many questions ask you to 'use the evidence' in the resources provided such as the maps, photographs and graphs. You must make sure that you do so rather than using your background knowledge. (e.g. if you are asked to describe the features of an industry shown in a photograph there is no need to include general information about that industry and its location. If you are asked to describe features of a coastal area shown on a map there will be no credit for explaining how they were formed. If you are asked to use evidence from the map to explain why there are no settlements in some areas there is no point in referring to the climate as the map extract is unlikely to include information about it).
- Practise basic map skills, for example six-figure grid references. Candidates sometimes get the third and sixth figures confused. Make sure you give the reference for the position of the symbol rather than the name of the place.
- If you are asked to measure a distance it is worth using the linear scale below the map and a straight edged piece of paper. By doing this you will be less likely to make mistakes which are possible when using calculation to convert centimetres to kilometres and metres. Look carefully at what units you need to use, whether you should answer to the nearest kilometre or in metres. Make sure you always give the units in your answer rather than just writing down the number.
- You could be asked to give a direction or a compass bearing. Make sure you know the difference and check which of the features you are measuring from and to, by looking carefully at the wording of the question.
- If you are asked to draw a graph be as accurate as you can, measuring carefully and using a ruler. Take care to draw the type of graph that the question asks for rather than a different type of graph.
- Make sure you know how to draw and read a divided bar graph; it is used in a different way from a normal bar graph.

## Paper 4 advice

- This paper is an alternative to coursework and to prepare for it you need to be able to answer questions about collecting, presenting and analysing data like you would in a geographical investigation. There is nearly always a question that asks you to write a conclusion and an evaluation. You need to practise these skills.
- Many of these questions are based on a hypothesis. Make sure you are familiar with testing hypotheses.
- You will be given resources to use in the examination which you have not seen before, perhaps different types of graphs or diagrams. Look at the diagrams carefully and think carefully about what they are showing before you answer the questions. You may be asked to complete a diagram, in which case you need to complete it accurately and carefully.
- You will have to answer questions about data which has already been collected as part of an investigation. This could be a set of figures, graphs or maps. One of the things you will be asked to do is to recognise and describe patterns or trends (e.g. the distribution of rainfall over an area as shown on a map or over time as shown on a graph, the amount of erosion alongside a footpath as shown on a diagram). You should practise this skill, using data which you have collected yourself, or data from your teacher.
- If you are asked questions about the data in the resources you will be expected to **use** that data rather than simply listing or repeating the figures (e.g. you may be asked to compare two sets of data about different places, look for a relationship between two or more sets of data or recognise similarities and differences). However it is always useful to support your answer by referring back to the resource and quoting data from it.
- Learn about the different types of samples that can be used when collecting data – you may be asked to describe the advantages of using systematic or stratified sampling for example. Many candidates assume that the only sample that can be taken is a random sample.
- You may be asked to suggest practical ways in which something could be improved. This could be an actual investigation or something which has been investigated (e.g. the amount and distribution of pollution in a river). You will be expected to be realistic in your suggestions so always think about whether they are practical. For example to suggest that all the residents of a town should be interviewed rather than taking a sample is unrealistic. Similarly, to suggest that all factories alongside the river are shut down is not a suggestion which is practical.
- When asked to write a conclusion you need to look at the evidence and then say whether you think the hypothesis is correct or not. In a few cases it may be only partly correct. You must then give evidence to support your conclusion. This evidence must be based on the data provided in the question.

## Section 3: What will be tested?

We take account of the following skill areas in your examination papers:

- your knowledge (what you remember) and understanding (how you use what you know and apply it to new situations)
- how you interpret and analyse information, e.g. data, graphs, diagrams, photographs
- how you make judgements and decisions, including conclusions, based on information.

These skills are called assessment objectives. They are explained in the table below. Your teacher will be able to give you more information about how each of these is tested in the examination papers.

Assessment objective	What the objective means	What you need to be able to do
AO1: Knowledge with understanding	Remembering facts and applying these facts to new situations	Demonstrate knowledge and understanding of: <ul style="list-style-type: none"> <li>• the wide range of processes, including human actions, contributing to the development of               <ul style="list-style-type: none"> <li>(a) physical, economic and social environments and their effects on the landscape</li> <li>(b) spatial patterns and interactions which are important within these environments</li> </ul> </li> <li>• the relationships between human activity and the environment</li> <li>• the importance of scale (whether local, regional or global)</li> <li>• the changes which occur through time in places, landscapes and spatial distribution.</li> </ul>
AO2: Skills and analysis	How you select information and apply geographical understanding to explain the information	<ul style="list-style-type: none"> <li>• interpret and analyse geographical data</li> <li>• use and apply geographical knowledge and understanding to maps and in numerical, diagrammatic, pictorial, photographic and graphical form</li> <li>• use geographical data to recognise patterns in such data and to deduce relationships</li> <li>• select and show understanding of techniques for observing and collecting data</li> <li>• select and use techniques for organising and presenting data.</li> </ul>

### Section 3: What will be tested?

AO3: Judgement and decision-making	Being able to make judgements based on information and recognise possible decisions	<p>Use your geographical training to:</p> <ul style="list-style-type: none"><li>• reason and make judgements and decisions, including evaluation and conclusions, which demonstrate, where appropriate<ul style="list-style-type: none"><li>(a) an appreciation of the attitudes, values and beliefs of others in issues which have a geographical dimension</li><li>(b) an awareness of the contrasting opportunities and constraints of people living in different places and under different physical and human conditions</li><li>(c) a willingness to review their own attitudes in the light of the views of others and new knowledge acquired</li></ul></li><li>• make judgements and decisions and recognise how these are made within a geographical context as affected and constrained by<ul style="list-style-type: none"><li>(a) the physical and human contexts in which decisions are made</li><li>(b) the values and perceptions of differing groups or individuals</li><li>(c) the choices available to decision makers</li><li>(d) the increasing level of global interdependence and the need for sustainable development.</li></ul></li></ul>
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## Section 4: What you need to know

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The table describes the things you may be tested on in the examination. It is arranged in three themes with several topic areas within each theme. Each topic is divided up into sections, which contain the detail that you need to know.

### How to use the table

You can use the following table throughout your course to check the topic areas you have covered. You can also use it as a revision aid. When you think you have a good knowledge of a topic, you can tick the appropriate box in the checklist column.

Test yourself as follows:

- cover up the details with a piece of paper
- try to remember the details
- when you have remembered the details correctly, put a tick in the appropriate box.

If you use a pencil to tick the boxes, you can retest yourself whenever you want by simply rubbing out the ticks. If you are using the table as a checklist of which topics you have covered, you can put a tick in the topic column next to the appropriate bullet point.

The column headed 'Comments' can be used:

- to add further information about the details for each bullet point
- to add learning aids, e.g. CASH (for corrosion, attrition, solution, hydraulic action)
- to highlight areas of difficulty/things which you need to ask your teacher about.

## Theme 1: Population and settlement

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
1.1 Population dynamics	<ul style="list-style-type: none"> <li>Describe and give reasons for the rapid increase in the world's population</li> <li>Show an understanding of over-population and under-population</li> <li>Understand the main causes of a change in population size</li> <li>Give reasons for contrasting rates of natural population change</li> <li>Describe and evaluate population policies</li> </ul>	<p>Causes and consequences of over-population and under-population</p> <p>How birth rate, death rate and migration contribute to the population of a country increasing or declining</p> <p>Impacts of social, economic and other factors (including government policies, HIV/AIDS) on birth and death rates</p>		
<i>Case studies required in 1.1</i>	<ul style="list-style-type: none"> <li>A country which is over-populated</li> <li>A country which is under-populated</li> <li>A country with a high rate of natural population growth</li> <li>A country with a low rate of population growth (or population decline)</li> </ul>			
1.2 Migration	<ul style="list-style-type: none"> <li>Explain and give reasons for population migration</li> <li>Demonstrate an understanding of the impacts of migration</li> </ul>	<p>Internal movements such as rural-urban migration, as well as international migrations, both voluntary and involuntary</p> <p>Positive and negative impacts should be considered, on the destination and origin of the migrants, and the migrants themselves</p>		
<i>Case study required in 1.2</i>	<ul style="list-style-type: none"> <li>An international migration</li> </ul>			

## Theme 1: Population and settlement

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
1.3 Population structure	<ul style="list-style-type: none"> <li>Identify and give reasons for and implications of different types of population structure</li> </ul>	Age/sex pyramids of countries at different levels of economic development		
<i>Case study required in 1.3</i>	<ul style="list-style-type: none"> <li>A country with a high dependent population</li> </ul>			
1.4 Population density and distribution	<ul style="list-style-type: none"> <li>Describe the factors influencing the density and distribution of population</li> </ul>	Physical, economic, social and political factors		
<i>Case studies required in 1.4</i>	<ul style="list-style-type: none"> <li>A densely populated country or area (at any scale from local to regional)</li> <li>A sparsely populated country or area (at any scale from local to regional)</li> </ul>			
1.5 Settlements and service provision	<ul style="list-style-type: none"> <li>Explain the patterns of settlement</li> </ul>	Dispersed, linear, and nucleated settlement patterns		
	<ul style="list-style-type: none"> <li>Describe and explain the factors which may influence the sites, growth and functions of settlements</li> </ul>	Influence of physical factors (including relief, soil, water supply) and other factors (including accessibility, resources)		
	<ul style="list-style-type: none"> <li>Give reasons for the hierarchy of settlements and services</li> </ul>	High-, middle- and low-order settlements and services. Sphere of influence and threshold population		
<i>Case study required in 1.5</i>	<ul style="list-style-type: none"> <li>Settlement and service provision in an area</li> </ul>			

## Theme 1: Population and settlement

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
1.6 Urban settlements	<ul style="list-style-type: none"> <li>Describe and give reasons for the characteristics of, and changes in, land use in urban areas</li> <li>Explain the problems of urban areas, their causes and possible solutions</li> </ul>	<p>Land use zones including the Central Business District (CBD), residential areas, industrial areas and the rural-urban fringe of urban areas in countries at different levels of economic development</p> <p>The effect of change in land use and rapid urban growth in an urban area including the effects of urban sprawl</p> <p>Different types of pollution (air, noise, water, visual), inequality, housing issues, traffic congestion and conflicts over land use change</p>		
<i>Case study required in 1.6</i>	<ul style="list-style-type: none"> <li>An urban area (including changing land use and urban sprawl)</li> </ul>			
1.7 Urbanisation	<ul style="list-style-type: none"> <li>Identify and suggest reasons for rapid urban growth</li> <li>Describe the impacts of urban growth on both rural and urban areas, along with possible solutions to reduce the negative impacts</li> </ul>	<p>Reference should be made to physical, economic and social factors which result in rural depopulation and the movement of people to major cities</p> <p>The effects of urbanisation on the people and natural environment.</p> <p>The characteristics of squatter settlements</p> <p>Strategies to reduce the negative impacts of urbanisation</p>		
<i>Case study required in 1.7</i>	<ul style="list-style-type: none"> <li>A rapidly growing urban area in a developing country and migration to it</li> </ul>			

## Theme 2: The natural environment

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
2.1 Earthquakes and volcanoes	<ul style="list-style-type: none"> <li>Describe the main types and features of volcanoes and earthquakes</li> <li>Describe and explain the distribution of earthquakes and volcanoes</li> <li>Describe the causes of earthquakes and volcanic eruptions and their effects on people and the environment</li> <li>Demonstrate an understanding that volcanoes present hazards and offer opportunities for people</li> <li>Explain what can be done to reduce the impacts of earthquakes and volcanoes</li> </ul>	<p>Types of volcanoes (including stratovolcanoes [composite cone] and shield volcano)</p> <p>Features of volcanoes (including crater, vent, magma chamber)</p> <p>Features of earthquakes (including epicentre, focus, intensity)</p> <p>The global pattern of plates, their structure, and an awareness of plate movements and their effects – constructive/divergent, destructive/convergent and conservative plate boundaries</p>		
<i>Case studies required in 2.1</i>	<ul style="list-style-type: none"> <li>An earthquake</li> <li>A volcano</li> </ul>			

## Theme 2: The natural environment

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
2.2 Rivers	<ul style="list-style-type: none"> <li>Explain the main hydrological characteristics and processes which operate within rivers and drainage basins</li> <li>Demonstrate an understanding of the work of a river in eroding, transporting and depositing</li> <li>Describe and explain the formation of the landforms associated with these processes</li> <li>Demonstrate an understanding that rivers present hazards and offer opportunities for people</li> <li>Explain what can be done to manage the impacts of river flooding</li> <li>The opportunities presented by a river, the hazards associated with it and their management</li> </ul>	<p>Characteristics of rivers (including width, depth, speed of flow) and drainage basins (including watershed, tributary, confluence)</p> <p>Processes which operate in a drainage basin (including interception, infiltration, throughflow, groundwater flow, evaporation, overland flow)</p> <p>Forms of river valleys – long profile and shape in cross section, waterfalls, potholes, meanders, oxbow lakes, deltas, levées and flood plains</p> <p>Causes of hazards including flooding and river erosion</p> <p>Opportunities of living on a flood plain, a delta or near a river</p>		
<i>Case study required in 2.2</i>				

## Theme 2: The natural environment

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
2.3 Coasts	<ul style="list-style-type: none"> <li>• Demonstrate an understanding of the work of the sea and wind in eroding, transporting and depositing</li> <li>• Describe and explain the formation of the landforms associated with these processes</li> <li>• Describe coral reefs and mangrove swamps and the conditions required for their development</li> <li>• Demonstrate an understanding that coasts present hazards and offer opportunities for people</li> <li>• Explain what can be done to manage the impacts of coastal erosion</li> <li>• The opportunities presented by an area of coastline, the hazards associated with it and their management</li> </ul>	<p>Cliffs, wave-cut platforms, caves, arches, stacks, bay and headland coastlines, beaches, spits, and coastal sand dunes</p> <p>Hazards including coastal erosion and tropical storms</p>		
<i>Case study required in 2.3</i>				

## Theme 2: The natural environment

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
2.4 Weather	<ul style="list-style-type: none"> <li>Describe how weather data is collected</li> </ul>	<p>Describe and explain the characteristics, siting and use made of a Stevenson screen</p> <p>Rain gauge, maximum-minimum thermometer, wet-and-dry bulb thermometer (hygrometer), sunshine recorder, barometer, anemometer and wind vane, along with simple digital instruments which can be used for weather observations; observations of types and amounts of cloud</p>		
	<ul style="list-style-type: none"> <li>Make calculations using information from weather instruments</li> </ul>			
	<ul style="list-style-type: none"> <li>Use and interpret graphs and other diagrams showing weather and climate data</li> </ul>			

## Theme 2: The natural environment

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
2.5 Climate and natural vegetation	<ul style="list-style-type: none"> <li>Describe and explain the characteristics of two climates:               <ul style="list-style-type: none"> <li>– equatorial</li> <li>– hot desert</li> </ul> </li> </ul>	<p>Climate characteristics (including temperature [mean temperature of the hottest month, mean temperature of the coolest month, annual range]; and precipitation [the amount and seasonal distribution])</p> <p>Factors influencing the characteristics of these climates (including latitude, pressure systems, winds, distance from the sea, altitude and ocean currents)</p> <p>Climatic graphs showing the main characteristics of temperature and rainfall of the two climates</p>		
<i>Case studies required in 2.5</i>	<ul style="list-style-type: none"> <li>Describe and explain the characteristics of tropical rainforest and hot desert ecosystems</li> </ul>	<p>The relationship in each ecosystem of natural vegetation, soil, wildlife and climate</p>		
	<ul style="list-style-type: none"> <li>Describe the causes and effects of deforestation of tropical rainforest</li> <li>An area of tropical rainforest</li> <li>An area of hot desert</li> </ul>	<p>Effects on the natural environment (both locally and globally) along with effects on people</p>		

## Theme 3: Economic development

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
3.1 Development	<ul style="list-style-type: none"> <li>Use a variety of indicators to assess the level of development of a country</li> <li>Identify and explain inequalities between and within countries</li> <li>Classify production into different sectors and give illustrations of each</li> <li>Describe and explain how the proportions employed in each sector vary according to the level of development</li> <li>Describe and explain the process of globalisation, and consider its impacts</li> </ul>	<p>Indicators of development (including GNP per capita, literacy, life expectancy and composite indices, e.g. Human Development Index (HDI))</p> <p>Primary, secondary, tertiary and quaternary sectors</p> <p>Use of indicators of development and employment structure to compare countries at different levels of economic development and over time</p> <p>The role of technology and transnational corporations in globalisation along with economic factors which give rise to globalisation</p> <p>Impacts at a local, national and global scale</p>		
<i>Case study required in 3.1</i>	<ul style="list-style-type: none"> <li>A transnational corporation and its global links</li> </ul>			

## Theme 3: Economic development

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
3.2 Food production	<ul style="list-style-type: none"> <li>Describe and explain the main features of an agricultural system: inputs, processes and outputs</li> <li>Recognise the causes and effects of food shortages and describe possible solutions to this problem</li> </ul>	<p>Farming types: commercial and subsistence; arable, pastoral and mixed; intensive and extensive</p> <p>The influence of natural and human inputs on agricultural land use. Inputs including natural inputs (relief, climate and soil) and human inputs (economic and social). Their combined influences on the scale of production, methods of organisation and the products of agricultural systems</p> <p>Natural problems which cause food shortages (including drought, floods, tropical storms, pests) along with economic and political factors (including low capital investment, poor distribution/transport difficulties, wars)</p> <p>The negative effects of food shortages, but also the effects of food shortages in encouraging food aid and measures to increase output</p>		
<i>Case studies required in 3.2</i>	<ul style="list-style-type: none"> <li>A farm or agricultural system</li> <li>A country or region suffering from food shortages</li> </ul>			

## Theme 3: Economic development

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
3.3 Industry	<ul style="list-style-type: none"> <li>Demonstrate an understanding of an industrial system: inputs, processes and outputs (products and waste)</li> <li>Describe and explain the factors influencing the distribution and location of factories and industrial zones</li> </ul>	<p>Industry types: manufacturing, processing, assembly and high technology industry</p> <p>The influence of factors including land, labour, raw materials and fuel and power, transport, markets and political factors</p> <p>Their combined influences on the location, scale of production, methods of organisation and the products of the system</p> <p>Industrial zones and/or factories with respect to locational and siting factors</p>		
<i>Case study required in 3.3</i>	<ul style="list-style-type: none"> <li>An industrial zone or factory</li> </ul>			
3.4 Tourism	<ul style="list-style-type: none"> <li>Describe and explain the growth of tourism in relation to the main attractions of the physical and human landscape</li> <li>Evaluate the benefits and disadvantages of tourism to receiving areas</li> <li>Demonstrate an understanding that careful management of tourism is required in order for it to be sustainable</li> </ul>			
<i>Case study required in 3.4</i>	<ul style="list-style-type: none"> <li>An area where tourism is important</li> </ul>			

## Theme 3: Economic development

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
3.5 Energy	<ul style="list-style-type: none"> <li>Describe the importance of non-renewable fossil fuels, renewable energy supplies, nuclear power and fuelwood; globally and in different countries at different levels of development</li> <li>Evaluate the benefits and disadvantages of nuclear power and renewable energy sources</li> <li>Energy supply in a country or area</li> </ul>	<p>Non-renewable fossil fuels including coal, oil and natural gas. Renewable energy supplies including geothermal, wind, HEP, wave and tidal power, solar power and biofuels</p>		
<i>Case study required in 3.5</i>				
3.6 Water	<ul style="list-style-type: none"> <li>Describe methods of water supply and the proportions of water used for agriculture, domestic and industrial purposes in countries at different levels of economic development</li> <li>Explain why there are water shortages in some areas and demonstrate that careful management is required to ensure future supplies</li> <li>Water supply in a country or area</li> </ul>	<p>Methods of water supply (including reservoirs/dams, wells and bore holes, desalination)</p> <p>The impact of lack of access to clean water on local people and the potential for economic development</p>		
<i>Case study required in 3.6</i>				

## Theme 3: Economic development

Topic:	You should be able to:	Further guidance:	Checklist	Comments or named case study examples
3.7 Environmental risks of economic development	<ul style="list-style-type: none"> <li>Describe how economic activities may pose threats to the natural environment, locally and globally</li> <li>Demonstrate the need for sustainable development and management</li> <li>Understand the importance of resource conservation</li> <li>An area where economic development is taking place causing the environment to be at risk</li> </ul>	Threats to the natural environment including soil erosion, desertification, enhanced global warming and pollution (water, air, noise, visual)		
<i>Case study required in 3.7</i>				

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## Section 5: Useful websites

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The websites listed below are useful resources to help you study for your Cambridge IGCSE Geography.

[www.geographyalltheway.com](http://www.geographyalltheway.com)

This is a wide-ranging site which includes good coverage of the content of the 0460 IGCSE Geography syllabus, which will be useful both to teachers and learners. The approach is lively and there is basic no-nonsense text as well as some good photos, maps, diagrams, links to YouTube and even a few worksheets.

### Population dynamics and general

[www.nationmaster.com](http://www.nationmaster.com)

A useful website to compare countries at different levels of development using a wide range of statistics. You can choose which countries or continents to compare and select different statistics including population, economy, agricultural information and environmental pollution data. A bar graph is drawn to show the chosen statistics and the results are mapped. There are further links on your chosen countries giving further information.

### Structure and interrelationships of physical and human geography

[www.usgs.gov](http://www.usgs.gov)

This is a USA based site and has a lot of good, up-to-date information on the structure of the earth and the hazards of volcanoes and earthquakes. On the home page, go to the alphabetical index and find 'volcanic activity' or 'earthquakes'. The FAQs are good for revision or further explanation. The hazards section provides useful case study information. The most exciting feature of this website is the links for daily monitoring of volcanoes and earthquakes i.e. to see what seismic activity is going on at that precise moment. You can follow the links for a specific US area e.g. Alaska or select a world map of seismic activity at [www.earthquake.usgs.gov/recenteqsww/](http://www.earthquake.usgs.gov/recenteqsww/). By clicking on the map you can obtain further information about the depth and magnitude of the recent earthquake.

[www.georesources.co.uk](http://www.georesources.co.uk)

This is a 'portal', i.e. a site which contains useful links to other sites but with a comment on how useful it might be to your studies. It is a very easy site to use. Follow the GCSE link to a list of topics. Select the topic you are studying to find additional information or case study material. The case studies are often from the UK but it does contain many worldwide examples. The 'Virtual Fieldwork' section is worth visiting (especially in preparation for Papers 3 or 4). This is particularly useful if you have not experienced river studies or are not familiar with coasts or glacial landscapes. The photo gallery is also good. If you need any outline maps of any country then they can be downloaded from here.

[www.geography.learnontheinternet.co.uk](http://www.geography.learnontheinternet.co.uk)

This is more like an online geography textbook. Many of the Cambridge IGCSE topics are included under the GCSE Geotopics section. The information is presented in an easy-to-read style with plenty of photographs and diagrams to help you understand. The 'Activities' section contains some useful quiz questions in different styles to help you learn the information. There is also a revision section as a summary and a few additional links to other websites.

### **Population dynamics**

[www.census.gov](http://www.census.gov)

This home page contains the world population clock which constantly updates the number of people in the world. To find and use population pyramids of different countries, follow the link under 'people' to 'international' and then International Data Base (IDB) and 'population pyramids'. Select a country e.g. Namibia and submit the query to show the 2000, 2025 and 2050 expected pyramids. You can also choose a specific date for a pyramid but the most interesting feature is the dynamic pyramid which shows how the population changes over time. Choose countries with different birth and death rates or at different stages of economic development to compare population structures.

### **Population and settlement and economic development and the use of resources**

[www.globaleye.org.uk](http://www.globaleye.org.uk)

This is the website for the magazine 'Global Eye' which looks at global development issues. There are three sections for each issue aimed at learners aged 11–15. The first is on a specific country, the second is on a theme and the third is 'on camera' which is an interesting set of linked images. The website contains lots of articles which are full of case study material. The 'Index' section divides all the articles into themes or countries. Browse through the themes to find case studies on water resources, tourism, urbanisation, migration or flooding for example. The 'Teachers' Notes' give supplementary resources and websites for the latest edition of 'Global Eye' and are useful if wanting to investigate the given country or theme in more detail. This website changes often, so it is worth checking regularly.

### **Economic development and the use of resources**

[www.stepin.org](http://www.stepin.org)

This website is concerned mainly with the use of sustainable technology throughout the world in agriculture, industry and energy resources. It is easy to navigate and provides useful and interesting case studies with photographs. Some of the information is about technical design but a lot of useful case study examples are included which would not be found in textbooks.

## Section 6: Command words and phrases

We use command words to help you to understand what examiners are looking for in your answers. This table explains what each of these words or phrases means and will help you to understand the kind of answer you should write. The list of command words is in alphabetical order. You should remember that the meaning of a term may vary slightly depending on how the question is worded.

Command word/phrases	Meaning
<b>Annotate</b>	You have to add labels of notes or short comments to a diagram, map or photograph. More than one word is needed.
<b>Calculate</b>	You need to give a numerical answer. You should show your working, especially where two or more steps are involved.
<b>Compare</b>	You have to identify similarities and differences. Usually you need to look carefully at two or more resources (sets of data, photographs of places, features or geographical ideas), then explain how they are similar and how they are different.
<b>Complete</b>	You need to add the remaining details. <i>e.g. finish a graph using the data or finish a statement, which has been started for you.</i>
<b>Define</b>	You need to state the meaning of something. <i>e.g. Longshore drift is the movement of material along the coast.</i>
<b>Describe</b>	You need to state the main points about something, (to say what it is like). <i>e.g. describe the movement of a pebble along a beach.</i>  You may also be asked to describe: <ul style="list-style-type: none"> <li>• observations <i>e.g. describe what is shown on the photograph</i></li> <li>• patterns <i>e.g. describe the change shown by the rainfall data</i></li> <li>• processes <i>e.g. describe how a waterfall is formed</i></li> </ul> Describe is often used with other command words. <i>e.g. Name and describe [name the feature and write the factual details about it].</i> <i>e.g. Describe and explain [set out the factual details and give reasons for them].</i>
<b>Draw</b>	You should produce a simple line drawing. The most important points should be shown and usually you should label them. <i>e.g. Draw and label a diagram to show a nucleated settlement.</i>
<b>Explain Account for</b>	(i) You have to give reasons for your answer. <i>OR</i> (ii) refer to a particular geographical theory <i>e.g. explain why rainfall is higher in areas of high altitude</i>
<b>Identify</b>	You have to recognise a specific feature or features shown, for example, on a graph, photograph, map or text, <i>e.g. identify the spit.</i>
<b>Illustrating your answer</b>	(i) You should use specific examples or case studies to support your comments. <i>OR</i> (ii) You need to produce a labelled diagram to show the important points.

Command word/phrases	Meaning
<b>Insert Label</b>	You should add specific names or details to show a feature or features.
<b>List</b>	Write down a number of separate points. Where the number of points is stated, you should not write more than this number <i>e.g. list <b>two</b> advantages of random sampling.</i>
<b>Locate</b>	You have to find a place, usually on a map or graph.
<b>Measure</b>	(i) You need to find a quantity using the measuring instrument given <i>e.g. the maximum temperature from the max/min thermometer</i> OR (ii) calculate the distance on a map using the scale
<b>Name</b>	You have to state or identify or give examples which illustrate a specific feature.
<b>Outline</b>	Give the main points briefly. <i>e.g. outline the impact of deforestation on the local people.</i>
<b>Pattern</b>	A particular arrangement or distribution <i>e.g. settlements.</i>  You may be asked to suggest a pattern or identify a pattern (or trend).
<b>Refer to With reference to</b>	You should use some of the ideas from the resources provided in the question, or examples from your case study information.
<b>State</b>	You should give a short answer without going into any detail. <i>e.g. state the type of migration when people move between countries.</i>
<b>Study</b>	You should look carefully at the information provided to answer the question. The examiner is often telling you where to find the answer with this command word.
<b>Suggest</b>	(i) You should give your opinion based on the information given in the question. <i>e.g. suggest where a split may develop.</i> (ii) You should apply your geographical knowledge or reasoning skills to a question. <i>e.g. suggest why the shop was located in this area.</i>
<b>Use or Using the information provided</b>	You should base your answer on the information provided.
<b>Why</b>	You should state or give detailed reasons. This word is often used instead of explain.

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