

CfE

ADVANCED Higher GEOGRAPHY

BrightRED
PUBLISHING

BrightRED Study Guide

CfE

ADVANCED Higher
GEOGRAPHY



Don't forget to check out
the BrightRED Digital Zone

INTRODUCTION

COURSE SUMMARY

This is a revision guide and will help to supplement your course notes from school/college for the CfE Advanced Higher Geography course. If you studied CfE Higher Geography last year, you will be familiar with a range of geographical skills. This year, you will further develop your existing geographical skills and learn a wide range of new skills by undertaking practical activities.

COURSE OVERVIEW

CfE Advanced Higher Geography has the following course structure:

Geographical skills

In this section of the course, you will be required to provide evidence of your ability to:

- develop independent geographical research skills
- apply a wide range of research methods and fieldwork techniques
- apply a wide range of statistical, graphical and mapping techniques in an appropriate geographical context.

This section will help you to develop the wide range of skills required to successfully complete the coursework project folio: geographical study.

Geographical issues

In this section of the course, you will be required to provide evidence of your ability to:

‘Critically evaluate viewpoints using evidence from a wide range of sources relating to a complex, current, geographical issue.’

This section will develop the wide range of skills required to successfully complete the coursework project folio: geographical issue.

COURSEWORK

The project folio is undertaken throughout the course and built up over time to be completed by the SQA submission date, which is usually in May. The project folio gives you an opportunity to develop your knowledge and understanding of geography at Advanced Higher level and to apply this knowledge and understanding to a study and issue of interest to you. You are free to research any appropriate study and issue of your own choice. For more details, refer to pp. 82–89 of this study guide.

DON'T FORGET



The more organised you are, the better your project folio is likely to be.

Project folio

The project folio has 100 marks, two-thirds of the overall course mark.

The total mark will be distributed as follows:

Section A: geographical study – 60 marks	Section B: geographical issue – 40 marks
<p>Allows you to demonstrate the ability to undertake detailed research of a geographical nature which uses primary and/or secondary sources, to gather and process data and report findings appropriately.</p> <p>In order to complete section A (geographical study), you will:</p> <ul style="list-style-type: none"> • justify the choice of a complex geographical topic to research • plan and carry out detailed research, which could include fieldwork • evaluate the research techniques and the reliability of data gathered • demonstrate a detailed knowledge and understanding of the topic being studied from wider reading • use a wide range of appropriate techniques to process the gathered information • analyse all the information that has been gathered, and processed, to identify and explain relationships • reach reasoned conclusion(s) supported by a wide range of evidence. 	<p>Allows you to demonstrate the ability to carry out a critical evaluation of a complex geographical issue by identifying viewpoints, from a wide range of sources, relating to the issue, and evaluating these viewpoints in a way that allows valid conclusions to be drawn.</p> <p>In order to complete section B (geographical issue), you will:</p> <ul style="list-style-type: none"> • justify the choice of a current complex geographical issue to critically evaluate • undertake wider background reading from a wide range of sources relating to the geographical issue • summarise a wide range of viewpoints on the complex geographical issue • critically evaluate each of the viewpoints • reach reasoned conclusion(s) supported by a wide range of evidence.

Source: SQA Advanced Higher Geography Course Specification.

QUESTION PAPER – 50 MARKS

The exam lasts for 2 hours and 30 minutes and is made up of three sections, as outlined in the table. Questions will sample from across the course content – that is, skills, knowledge and understanding (for more details, see pp. 90–95.)

QUESTION NUMBER	GEOGRAPHICAL SKILL	NUMBER OF QUESTIONS TO BE ATTEMPTED	MARKS ALLOCATED (50 MARKS TOTAL)
1	<p>Map interpretation:</p> <p>Extended-response questions of 2–6 marks.</p> <p>Using a 1:25 000-scale Ordnance Survey (OS) map and other supplementary items (for more details, see pp. 92 and 93)</p>	Attempt all questions	20 marks
2	<p>Data-gathering and processing techniques:</p> <p>Extended-response questions of 2–6 marks</p> <p>Questions may use supplementary items supplied with the question paper (for more details, see pp. 94 and 95)</p>	Attempt all questions	10 marks
3	<p>Geographical data-handling:</p> <p>Extended-response questions of 2–6 marks</p> <p>Questions will assess the interpretation and analysis of a given set of data, including statistical data, to evaluate the techniques used and their effectiveness in explaining geographical relations (for more details, see pp. 94 and 95)</p>	Attempt all questions	20 marks

HOW THIS GUIDE CAN HELP YOU

There is no shortcut to passing any course at Advanced Higher level. To obtain a good pass requires consistent and regular revision over the duration of the course. The aim of this study guide is to help you to achieve success by providing you with concise and engaging coverage of the CfE Advanced Higher Geography course material. We recommend that you use this study guide in conjunction with your class notes to revise each skill area, to prepare for assessments, to prepare your submission of the project folio (study and issue) and to prepare for the final examination.

As you work through the pages of this study guide, think about the potential for links within and between the various geographical techniques:

- data-gathering techniques in physical geography (pp. 8–23)
- data-gathering techniques in human geography (pp. 24–37)
- statistical techniques (pp. 38–53)
- graphical techniques (pp. 54–63)
- mapping techniques (pp. 64–81)
- coursework (geographical study and geographical issue) (pp. 82–89)
- the question paper (pp. 90–95).

DON'T FORGET

To respond to questions in the exam, you are expected to fully use the supplied supplementary items and your atlas to extract as much detail as possible to allow you to respond by writing well-developed answers within the context of the question.

DON'T FORGET

You need to practise doing questions under timed conditions. The last thing you want is to run out of time in the examination.

DON'T FORGET

Remember you can use an atlas in the examination.

PHYSICAL GEOGRAPHY

BEACH-PROFILE ANALYSIS

PURPOSE

To measure the transverse profile (shape and morphology) of a beach from a fixed point set up behind the beach down to the low water mark. Profiles taken at different times and locations can be compared to illustrate and quantify changes in beach width, height, volume and shape. They can also be used to show the relationships between the beach profile and other factors – for example, the rock type, cliff profile and sediment size or shape.

DON'T FORGET

Refer to the generic equipment list on pp. 8 and 9.

EQUIPMENT

The specific equipment needed to complete a beach-profile analysis includes:

- a tape measure
- an Abney level and clinometer or pantometer
- ranging poles
- a compass
- a recording sheet.

VIDEO LINK

Check out the clips at www.brightredbooks.net to learn more about beach profiling and using an Abney level.

METHODOLOGY

Refer to both the generic advice on pp. 8 and 9 and the following specific points.

This technique is, by its nature, a group activity. You must ensure that you are involved in all aspects of the technique to be able to claim that the research is your work shared with others.

First, you need to set up your profile locations.

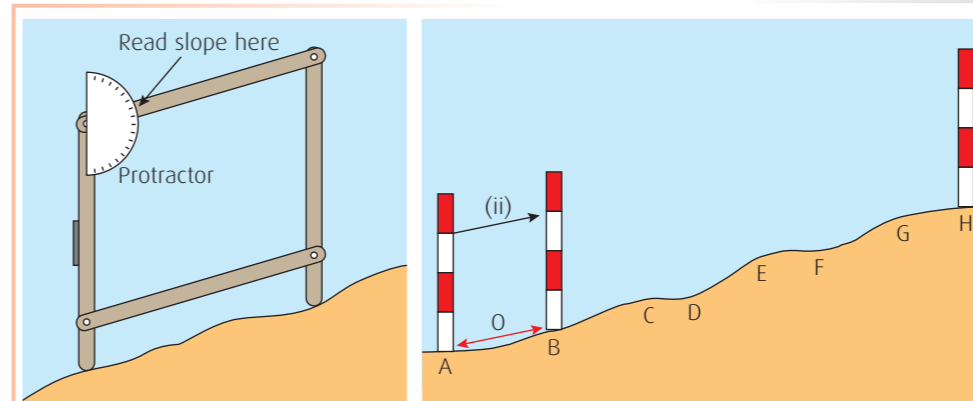
- Decide an appropriate sampling strategy using the guidance on p. 9.
- Locate sampling points along the beach by visually noting the main changes in slope angle along the profile, and use these as the basis for sections within the profile (e.g. A–B, B–C, C–D in the diagram). You can sketch a rough profile to indicate the break of slope points.
- At each sample point, identify and stake the reference point (H) using a ranging pole. Take a photo to record the position of this point for future reference.
- Use your compass to work out the bearing/orientation of the profile line. This will be perpendicular to the beach face. Place a ranging pole at the end of the profile line (A). Point A should ideally be the low tide mark (0 m), or as close to this as is safe. Maintain the bearing as you progress along the profile.
- For each section, use the Abney level and clinometer to take a bearing. Read and record the slope angle (ii) between points. The bearing must be taken at a point on the ranging pole at point A that coincides with the eye level of the person using the Abney level and clinometer. You must aim the Abney level and clinometer at the same level on the ranging pole at point B. Use the stripes on the ranging poles to help.
- Measure the ground distance of the section (O), and record this information with the slope angle.
- Repeat this process for each identified break in slope.
- If appropriate for your research, write down as many comments and observations as possible (e.g. grain size, bedform, debris lines or berm crest).



Using a clinometer and ranging poles to measure the angle of a beach profile.

Pantometers can be used by one person, and the slope can be surveyed systematically at short, regular intervals.

contd



Surveying the morphology of a beach using a pantometer and ranging poles.

Data collected by either method can be used to create a beach profile.

BEACH-PROFILE DATA SHEET		
Site Name: <u>Irvine Beach Profile 3</u>		
Date: <u>18/12/17</u> Surveyors: <u>M Smith & J Smart</u>		
Observations: e.g. Lots of debris on the beach washed up from last week's storm		
Measurement down from the top of the reference mark: <u>1.01 metres</u>		
Beach segment	Length of segment (metres)	Slope angle (degrees & minutes)
A-B	5.73	-7° 00'
B-C	4.29	-4° 00'
C-D	1.25	+3° 00'
D-E	1.85	-1° 30'
E-F	6.98	-8° 00'
F-G		
G-H		
H-I		

Example of a beach-profile analysis data record sheet.

CONSIDERATIONS AND LIMITATIONS

- Safety is a major consideration when carrying out fieldwork on a beach. Tides and the time you need or have to carry out fieldwork must be carefully checked and assessed. Working in groups to carry out several profiles along the beach at the same time and then sharing the results is an appropriate and efficient methodology.
- A balance needs to be struck between the time available and the need for a number of profiles across the width of the beach to ensure the validity of your results.
- To record accurate angle readings, the ranging poles need to be held straight and not allowed to sink into the sand.
- User error, or a lack of familiarity with using a clinometer, can produce invalid readings.
- The pantometer must be kept vertical when taking readings.

THINGS TO DO AND THINK ABOUT

Refer to the generic advice on pp. 8 and 9 and the following specific points.

Think about the possible links that beach-profile analysis may have with other geographical techniques in this study guide. For example:

- combining beach-profile analysis with pebble analysis, soil analysis and vegetation analysis to compare different sections of the same beach or sections of different beaches – for example, a sand beach compared with a pebble beach (pp. 10–23)
- combining beach-profile analysis, pebble analysis and vegetation analysis with environmental-quality survey and perception studies to carry out a beach-quality survey (pp. 24–37)
- statistical testing, such as mean pebble size or the Spearman rank correlation coefficient (pp. 38–53)
- graphical, such as bar or scatter graphs (pp. 54–63)
- mapping, such as annotations, cross-sections, transects and beach profiles (pp. 64–81.)

DON'T FORGET

Computer software may assist you in analysing your collected data – for example, the X-Y scatterplot in Excel or similar spreadsheets (X = distance, Y = angle between sections).

DON'T FORGET

Check you have sufficient data to process – if not, go gather more!

DON'T FORGET

Evaluate your research and consider whether the data collected is sufficient to meet the needs of your initial research questions. If not, you may need to carry out further field research.

ONLINE TEST

Test yourself on beach profiles on our Digital Zone at www.brightredbooks.net

DATA-PROCESSING TECHNIQUES

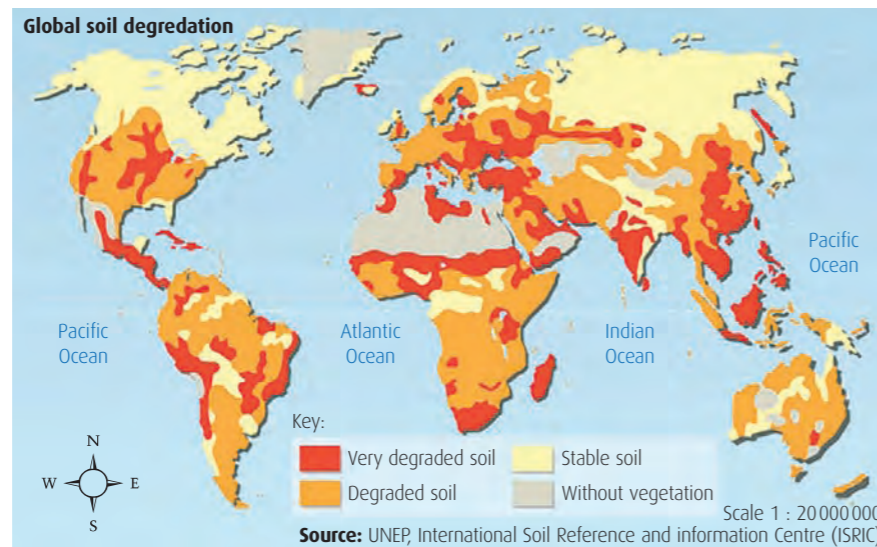
CHOROPLETH MAPS

DON'T FORGET

Refer to the detailed information on pp. 64 and 65 for the equipment needed to draw a choropleth map.

ONLINE

Use the link on the Digital Zone to find out more about choropleth maps.



Example of a choropleth map.

PURPOSE

Choropleth maps are one of the most widely used techniques in displaying geographical data. Choropleth maps use a system of colour, greyscale, or line-density shading, to illustrate how the density of the data changes from area to area. They are maps on which areas are shaded according to a pre-arranged key. Each shading, or colour type, represents a range of values or bands, allowing the user to identify similarities and differences. They are especially appropriate for showing standardised data such as rates, densities or percentages.

Choropleth maps can be used to represent:

- density information expressed per unit area – for example, population per square kilometre
- differences in area data – for example, land ownership
- differences in land use – for example, the amount of recreational land or type of forest cover
- the percentage of eligible voters – for example, voters per ward or constituency
- tax rates expressed as percentages.

ONLINE

Use the link at www.brightredbooks.net to help you understand the types of choropleth maps that exist and which type to choose for your data.

VIDEO LINK

Watch the video 'How to make a choropleth map' at www.brightredbooks.net to see how to construct this type of map.

CONSTRUCTING A CHOROPLETH MAP

Use the following guide and the video on the Digital Zone to help you to construct a choropleth map:

1. Draw or source a base map with defined areas linked to a data set – for example, a map of New Zealand showing farming areas or regions.
2. Calculate standardised values for the areas on the base map (e.g. the farming areas).
3. Record these values in a table for reference – for example, a table showing farming regions and the number of cows.
4. Review the spread of values and decide the appropriate number of bands to best illustrate the data.
A balance needs to be made between:
 - too few bands, which could over-generalise the data and provide little visual information to analyse
 - too many bands, which could make the map overcomplicated and therefore making it difficult to recognise and meaningfully analyse differences in colour or shading.
5. The following will assist you in deciding how to band the data depending on the type of information being mapped:
 - fixed intervals where a data set has meaningful thresholds – for example, 0–9, 10–11
 - fixed intervals based on mathematical relationships (e.g. percentiles) – you could use quintiles, whereby the bottom 20% of values fall into one class and the next 20% into another, and so on

contd

- polarised ranges, whereby categories cluster towards one (or both) ends of the range of values – for example, to highlight deprivation, you might decide that the most prosperous 80% of areas are one shade, but the most deprived areas are highlighted by having different shades for the poorest 20, 10 and 5% of areas
 - intervals designed to reflect the natural breaks in the data sets – for example, if data values tend to cluster into distinct groups, you may wish to adjust the ranges so that all those areas falling into a particular group are shaded in the same colour.
- At the simplest level, arithmetic classes are obtained by dividing the range of values by the number of classes. This method has problems if the data is skewed; it is important that no single class occupies too large an area.
6. Choose a logical system of shading or colouring – for example:
 - for monochrome maps, use graded tones from light (low) to dark (high)
 - for coloured maps, use a gradation of colour along a range, rather than having completely unrelated colours for each category
 - note that it is not easy for readers to distinguish more than four shades of one colour
 - use light colours for low values and darker colours for high values
 - be aware that certain colours may have natural associations (e.g. red with debt)
 - white is generally used to indicate areas where data is missing or unavailable – it is therefore inadvisable to use white to represent any part of your range of actual values.
 7. Add a key, title, scale, compass direction and the data source to the map.

ANALYSING A CHOROPLETH MAP

When analysing choropleth maps, you should be able to explain, within the context of the question/data, the spatial patterns illustrated in the mapped data with reference to relevant background geographical knowledge and understanding. Any anomalous results should be explained by referring to other sources or research.

To fully appreciate the displayed data, always consider the nature of the map's construction and use an atlas to obtain a wider perspective, taking into account that:

- the values in each area are average values and do not take into account other factors (e.g. relief, climate and economic activity)
- boundaries between areas are artificial divisions between the colours, whereas, in reality, the change will be more gradual
- the completed map hides any variation within an area.

CONSIDERATIONS/LIMITATIONS OF CHOROPLETH MAPS**Advantages**

- are visually effective – can show a large amount of information and general patterns
- have levels of shading/colour that represent a range of values
- have groupings that can be flexible to accommodate the spread of values
- have categories that provide a clear visual comparison of patterns
- illustrate cause-and-effect interpretations from the map data
- choropleth maps use averages, so can be used to compare areas, regions or countries.

Disadvantages

- the interval/class size needs to be chosen carefully
- it can be difficult to distinguish between different shades
- there could be variations
- choropleth maps are often not suitable for showing total values – proportional symbol overlays (pp. 70 and 71) are one solution to this problem.

THINGS TO DO AND THINK ABOUT

Refer to the generic advice for graphs on pp. 64 and 65 and the following specific points.

Think about the possible links that choropleth maps have with other geographical techniques in this study guide.

Check out the links on the Digital Zone about using geographical information systems.

DON'T FORGET

Shaded maps can emphasise large areas much more than small ones – for example, highlighting rural areas over urban areas.

ONLINE

Follow the links at www.brightredbooks.net to sites that provide good information, examples and tests for choropleth maps.

ONLINE TEST

Head to www.brightredbooks.net to test yourself on choropleth maps.

ONLINE

Follow the link on the Digital Zone for the Geographical Base Map Library.

PROJECT FOLIO

GENERAL ADVICE ON THE PROJECT FOLIO

ONLINE



Check out the following resources at www.brightredbooks.net

- geographical-study flow diagram
- glossary of terms
- ideas for a potential topic
- IB Geography ten-step plan
- Harvard guide to using sources

PURPOSE OF THE PROJECT

'The purpose of this project folio is to demonstrate challenge and application by requiring the candidate to draw on and apply skills, knowledge and understanding within the context of research relating to a geographical study and issue. This may be related to areas candidates have studied in class if they wish, but they are free to research any appropriate geographical study and issue.'

Source: SQA Advanced Higher Geography Project folio General Assessment Information

The project folio will allow you to develop your independent research skills by:

- identifying an appropriate complex topic for the study and/or an issue to research
- planning a programme of research
- researching, collecting and recording information
- evaluating, synthesising and analysing information or evidence
- understanding approaches to organising, presenting and referencing findings in an appropriate geographical style.

WHAT YOU NEED TO KNOW

Before continuing, go to pp. 4–7 in this guide and read all the information and advice again.

The advice and guidance contained within the following pages will assume that:

- you want to achieve the maximum number of marks allocated for each of the criteria
- you have acquired the relevant geographical skills and techniques outlined in the pages of this study guide and can apply those skills and techniques appropriately within the context of your chosen geographical study and geographical issue
- you have access to, have read thoroughly and will refer to the advice and guidance in the following SQA documentation:
 - Advanced Higher Geography Course Assessment Specification (C733 77) http://www.sqa.org.uk/files_ccc/AHCASGeography.pdf
 - General Assessment Information for Advanced Higher Geography http://www.sqa.org.uk/files_ccc/GAInfoAHGeography.pdf
 - Guidance on Conditions of Assessment for Coursework http://www.sqa.org.uk/sqa/files_ccc/Guidance_on_conditions_of_assessment_for_coursework.pdf
 - Advanced Higher Geography Course/Unit Support Notes http://www.sqa.org.uk/files_ccc/AHCUSNGeography.pdf
 - Advanced Higher Geography Project folio Assessment Task
This document is kept on the SQA secure website. Ask your teacher/lecturer for a printout of this resource because it was designed to be shared with candidates as part of the Advanced Higher Geography learning experience.
 - Verification and Course Reports – useful guidance and advice based on actual candidate responses in a particular year <http://www.sqa.org.uk/sqa/48465.html>
 - SQA Understanding Standards – Exemplification of Candidate Responses and Mark Allocation – designed for teachers and markers, but also of use to candidates <http://www.understandingstandards.org.uk/Subjects/Geography/advanced/source>



Carrying out an urban land-use survey.

DON'T FORGET



If the word count for the geographical study exceeds the maximum by 10%, then a penalty may be applied.

FORMAT OF THE PROJECT FOLIO

The project folio consists of two parts: the geographical study and the geographical issue.

contd

Section A: geographical study (60 marks)

To be successful, you will need to:

- justify the choice of a complex geographical topic to research (4 marks)
- plan and carry out detailed research, which could include fieldwork (10 marks)
- evaluate the research techniques and reliability of the data gathered (8 marks)
- demonstrate a detailed knowledge and understanding of the topic being studied from wider reading (8 marks)
- use a wide range of appropriate techniques to process the gathered information (10 marks)
- analyse all the information that has been gathered and processed to identify and explain relationships (12 marks)
- reach reasoned conclusion(s) supported by a wide range of evidence (8 marks).

The completed geographical study should be no more than 3000 words in length (excluding any text used on the front covers, in the list of contents, any annotations to illustrations, the references, the bibliography and the appendices). The word count must be submitted by the candidate with the completed project folio (study).

Refer to pp. 8–37 (data-gathering techniques) and pp. 38–82 (data-processing techniques).

Section B: geographical issue (40 marks)

To be successful, you will need to:

- justify the choice of a current complex geographical issue to critically evaluate (4 marks)
- undertake wider background reading from a wide range of sources relating to the geographical issue (8 marks)
- summarise a wide range of viewpoints on the complex geographical issue (10 marks)
- critically evaluate each of the viewpoints (10 marks)
- reach a reasoned conclusion supported by a wide range of evidence (8 marks).

The completed geographical issue should be no more than 1800 words in length (excluding any text used on the front covers, in the list of contents, any annotations to illustrations, the references, the bibliography and the appendices). The word count must be submitted by the candidate with the completed project folio (issue).

See the listed web links to assist you with your critical evaluation.

You need to respond to all the criteria in both the geographical study (criteria A–G) and the geographical issue (criteria A–E). However, the starting point is not choosing/justifying a title (criterion A), but rather to begin by doing some research/background/wider reading (study – criteria B and D; issue – criterion B) to develop ideas about which topic/issue you might choose.

LAYOUT OF THE PROJECT

A critical skill is to understand how your findings should be presented in such a way as to be clear and reliable and to reflect a relevant geographical style. There is no single way to achieve this; and you should consider different possible approaches to organising and referencing your work.

WORKING WITH OTHERS

It might be helpful to work with others for some of the time when you are researching your study or issue – for example, when carrying out fieldwork. Any group fieldwork should be acknowledged in your study. It is important that the evidence you produce is your own work.

THINGS TO DO AND THINK ABOUT

The links on the Digital Zone will take you to useful academic resources providing general help, details of how to undertake a critical evaluation and essay-writing advice.

DON'T FORGET

Think about the connections between the criteria in the study and the issue.

DON'T FORGET

If the word count for the geographical issues essay exceeds the maximum by 10%, then a penalty may be applied.

DON'T FORGET

Evaluate your responses as you progress through the study and the issue.

ONLINE

Check out the following resources at www.brightredbooks.net

ONLINE

For detailed advice, refer to the Advanced Higher Geography Course/Unit Support Notes, pp. 38–40, bullet point 5. Find the link at www.brightredbooks.net

ONLINE

Check out the resources at www.brightredbooks.net.

CfE ADVANCED Higher

GEOGRAPHY

Phil Duffy

This BrightRED Study Guide is the ultimate companion to your CfE Advanced Higher Geography studies! Written by our trusted author and experienced Geography teacher, Phil Duffy, this book is full-colour and packed with clear and accessible information, excellent examples, activities and advice. Inside, you will find:

- ▶ **All the essential course information** arranged in easily digestible double-page topic spreads.
- ▶ **Detailed full-colour diagrams, illustrations and data boxes** to make sure all that study sticks!
- ▶ **Don't forget** pointers offering advice on the key facts to remember, and on how to avoid common mistakes.
- ▶ **Things to do and think about** sections encouraging the regular review of key points covered.
- ▶ **Digital Zone activities and tests** to supercharge your learning efforts online!
- ▶ **An index of key terms** to help when revising.

Your future's bright
with BrightRED
Study Guides!

Twice winner of the IPG Education Publisher of the Year award.

BrightRED
PUBLISHING

BE BRIGHT BE READY

Bright Red Publishing's easy to use, high-quality educational resources are trusted by teachers and custom designed to improve students' study experience to help them to achieve their potential.

To see more of what we do and stay up to date with all things Bright Red:

- ▶ follow us on Twitter @_BrightRed
- ▶ like us on facebook at www.facebook.com/brightredbooks
- ▶ visit us at www.brightredpublishing.co.uk
- ▶ or call us on 0131 220 5804 – we'd be delighted to hear from you!



www.brightredpublishing.co.uk

Check out the
BrightRED Digital Zone –
for a world of tests, activities,
links and more at
www.brightredbooks.net!



BrightRED

ISBN 978-1-84948-309-4



9 781849 483094