

# Geography

## Student Induction Guide

[HIGHER]



**The Scottish Qualifications Authority regularly reviews the arrangements for National Qualifications. Users of all NQ support materials, whether published by LT Scotland or others, are reminded that it is their responsibility to check that the support materials correspond to the requirements of the current arrangements.**

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## ***FOREWORD***

These support materials for Higher Geography are a revision of the original *Student Induction Guide* materials produced as part of the Higher Still development programme. They have been updated and amended in line with the course and unit specifications for Higher Geography which were published in Spring 2004, following the National Qualifications Review of geography courses.

This support pack provides staff and student materials designed to assist with induction to the Higher Geography course. The materials are based on the policies and practices in one Geography department but can be customised for use in any school or centre. Although designed for student induction to the Geography course at Higher, the pack could be readily adapted for use at other course levels.

The section of support notes for staff provides a brief overview of the purpose and contents of the pack, together with advice on customising the student guide. Advice is also given on how these materials can be integrated into an induction programme during the first week or so of a Higher Geography course.

# **INTRODUCTION**

## **Purpose and target group**

The purpose of this guide is to provide students who are embarking upon the Higher Geography course with a pack that may be used as part of a departmental induction programme and as a reference booklet for use throughout the session.

## **Contents of the guide and suggested teaching approaches**

The guide is in two parts, which can be used as a single package or copied as two separate booklets.

**Part 1** uses a question-and-answer approach to outline the course content, unit and course assessment procedures, etc. It has been designed as an induction to the Higher course and should therefore be used primarily in the first week or so of the course.

The structure for this departmental induction might include using the guide as a prompt for whole-class question-and-answer sessions on some or all of the following:

- context for learning
- learning and teaching approaches
- links to previous learning
- overview of the forthcoming work during the session
- assessment procedures
- clarification of expectations from the department
- target setting and action planning
- outline of available support.

This might be followed up with one-to-one discussions on issues such as individual target setting.

**Part 2** is in the form of a 'Can-Do' checklist for each of the Physical Environments, Human Environments and Environmental Interactions topics. Each checklist could be used to introduce the topics, and is a useful revision aid for students prior to end-of-topic assessments, a prelim exam (if it is offered), and the external course assessment or examination (currently in May or June).

### **Customising the guide**

The guide is based on the policies and practices of one department which has developed assessment policies for Geography, in line with a whole-school assessment policy. These policies may differ in some respects from other schools and departments and it may therefore be necessary to change some of the responses in the 'Student Questions and Answers' section.

The following changes might be made:

- adding the school/college name to the front cover and possibly adding a diagram or illustration;
- modifying the 'Student Questions and Answers' section as appropriate (e.g. removing references to Geology if not offered in the school);
- removing the content descriptions and 'Can-Do' checklists of the three Application topics which are not being offered;
- adding tick-boxes to the 'Can-Do' checklists if the guide is to be kept by students and not re-used the following session;
- adding the names of relevant case studies in the appropriate sections;
- adding any other relevant information about the units or course, such as a timeline diagram showing sequence of work, assessment dates, etc.

Further copies of the Student Induction Guide may be downloaded free of charge from the Learning and Teaching Scotland website <http://www.ltscotland.org.uk> where appropriate changes could be made directly on to the booklet to customise it for individual schools.

# **HIGHER GEOGRAPHY**

## **STUDENT INDUCTION GUIDE**

**PLEASE RETURN THESE MATERIALS  
WITH YOUR TEXTBOOKS AT THE END OF JUNE**



## **Student questions and answers**

### **What are the aims of the Higher Geography course?**

The two main aims of the course are:

- to further develop your knowledge and understanding of physical and human environments and their interrelationships
- to extend your evaluating skills and the range of geographical methods and techniques familiar to you.

### **What are the entry requirements?**

You would normally be expected to have already passed Standard Grade Geography or another Social Subject at Credit Level (grade 1 or 2). Alternatively, an Intermediate 2 award in Geography, Travel and Tourism, Geology or Managing Environmental Resources could lead on to Higher Geography.

### **How does the Higher course differ from Standard Grade?**

There are many topics in the Higher course with which you will be familiar from the Standard Grade course and for these you will build on your existing geographical knowledge and skills. There are other completely new topics such as global climate, soils and vegetation, and new detailed case studies within many of the topics.

### **How does the Higher course differ from the Intermediate 2 course?**

If you have already studied Intermediate 2 Geography, you will recognise that the Unit titles for Higher are the same. Many of the topics studied in Intermediate 2 are revisited in Higher and studied at greater depth. However, as there is a degree of choice in one of the three Higher units, your teacher may decide to select different case studies at Higher in order to broaden your geographical knowledge and skills.

**What does the course consist of?**

The course is made up of three compulsory **units**:

- **Unit 1:** Physical Environments
- **Unit 2:** Human Environments
- **Unit 3:** Environmental Interactions

**What is in Unit 1: Physical Environments?**

This unit is divided into two sections:

***Part 1 – Major systems of physical geography***

- **Atmosphere:** global atmosphere and climate
- **Hydrosphere:** global water cycle, with detailed study of river features
- **Lithosphere:** selected British landscapes and their formation
- **Biosphere:** natural vegetation change, ecosystems and soil types.

***Part 2 – Geographical Methods and Techniques (GMTs)***

- In this section you will use a range of methods and techniques for presenting, analysing and interpreting information on the four physical topics.

**What is in Unit 2: Human Environments?**

This unit is divided into two sections:

***Part 1 – Aspects of human geography***

- **Population geography:** population structure, migration and change
- **Rural geography:** selected agricultural systems, their associated landscapes and rural change
- **Industrial geography:** industrial systems, landscapes and change
- **Urban geography:** urban systems, patterns and change.

***Part 2 – Geographical Methods and Techniques (GMTs)***

- In this section you will use a range of methods and techniques for presenting, analysing and interpreting information on the four human topics.

### **What is in Unit 3: Environmental Interactions?**

In this unit you will have the opportunity to use your knowledge, understanding and skills from the Physical Environments and the Human Environments units to examine in-depth case studies from both the Developed and Developing World. Your knowledge and understanding of the interrelationships within and between the physical and human environment will be extended in the context of **two** of the following Environmental Interactions topics:

#### ***Group 1 topics***

- **Rural Land Resources:** landscapes and land uses in the UK
- **Rural Land Degradation:** case studies of soil erosion and its impact
- **River Basin Management:** case study of a major river management scheme.

#### ***Group 2 topics***

- **Urban Change and Management:** contrasts between two world cities
- **European Regional Inequalities:** patterns of inequality within the EU
- **Development and Health:** case studies of development, health and disease.

**One** topic will be selected from **each** group.

### **How does the assessment work?**

There are two types of assessment:

- **Internal** unit assessment which tests your basic knowledge, understanding and skills for each of the three **units**. This is done under exam conditions in class time at the end of each topic. You may be tested on all eight Core questions plus three Application questions.
- **External** assessment of the whole course is done in the end-of-session examinations by the Scottish Qualifications Authority.

### **What do I need to pass the internal assessment?**

To achieve Unit 1 (Physical Environments) you must pass an assessment which includes questions on two of the physical topics and one Geographical Method and Technique. The assessment is out of **25 marks** in total and you must achieve **at least 50%**, i.e.  $12\frac{1}{2}$  out of 25, in order to achieve a pass. An Ordnance Survey map question may be included in this assessment.

To achieve Unit 2 (Human Environments) you must pass an assessment which includes questions on two of the human topics and one Geographical Method and Technique. Again, the assessment is out of **25 marks** in total and you must achieve **at least 50%**, i.e. 12½ out of 25, in order to achieve a pass. An Ordnance Survey map question may be included in this assessment.

To achieve Unit 3 (Environmental Interactions) you must pass an assessment which includes a question on **one** of the six interactions topics. The assessment is out of **25 marks** in total and you must achieve **at least 50%**, i.e. 12½ out of 25, in order to achieve a pass.

Your performance in these internal unit assessments will be used, along with any prelim exam results, to estimate your grade in the final external examination.

#### **Will I get advance warning that a test is coming up?**

Yes. You should be told at least one week in advance of a test. Your teacher will try to negotiate the best assessment date with everyone in the class in order to ensure that there is no conflict with other school, family or personal events. You must then **record the agreed date** in your homework diary.

#### **How do I keep track of my performance?**

You will be given regular feedback on how you are progressing, and opportunities to review and record your progress. You should **record all of your assessment results** in your diary and your student log. This should help you, your parents and your guidance teacher to monitor your progress. Your class teacher will also keep a profile of your assessments which will form the basis of discussions about your attainment throughout the year.

#### **How important is the internal assessment?**

The internal assessments done in class time are extremely important as you must achieve a pass in **each of the three units** in the internal assessments before you can gain the **course award**. This means that if you fail to achieve the minimum requirement in the internal assessment, you will not get a Higher **course award** even if you pass the external exam. You would then have to re-sit the internal unit assessment at some future date to gain an award in the Higher course. However, if you fail only one of the two unit assessments you will still be credited for the unit which you passed, and this will be shown on your certificate.

**Do I get another chance if I fail an internal assessment?**

Should you fail to achieve a pass in any of the end-of-unit assessments your teacher will explain to you why you failed, give you advice on how to improve, and guide you towards learning materials which should help you to revise and master the topic. You will then be given **one** opportunity for reassessment. This is likely to be a different test paper from that used in the original. You need to be re-assessed only if you have failed to achieve 50% in any of the unit assessments.

**What happens if I am absent for a test?**

Unit tests have priority over most other events, and once an assessment date has been agreed and entered in your diary you should not make alternative arrangements. The main exceptions would be school-organised events, medical appointments and family events for which school permission has been sought **in advance**.

**Why do we need a prelim as well as all the other tests?**

Some schools/colleges may decide not to run prelim exams, but others will continue to do so. Any prelim exam has a number of different purposes. It can act as a 'dry run' to help you sort out any problems or difficulties before the actual external exam, and it may allow your teacher to predict or estimate more accurately your likely result. A prelim exam may also provide evidence for internal unit assessment.

**How does the external assessment work?**

Assessment of the whole **course** is done in this exam. You will attempt a total of six questions in Paper 1 (Physical and Human Environments) and two questions in Paper 2 (Environmental Interactions)

***Paper 1 (Physical and Human Environments)***

In this paper you will answer a total of **six** questions. In Section A there will be **two** compulsory questions drawn from the four physical environment topics and **two** compulsory questions drawn from the four human environment topics. In Section B you will answer **one** question from a choice of the two **physical** topics which have not appeared in Section A and in section C you will answer **one** question from a choice of the two **human** topics which have not appeared in Section A. All three sections may contain questions which are based on OS maps. At least **one question in Section A** will be OS map based. Questions in this paper will range in value from 7 to 10 marks giving a total for the paper of 50 marks. Paper 1 lasts for 1 hour 30 minutes.

***Paper 2 (Environmental Interactions)***

In this paper you will answer a total of **two** questions from a choice of six based on the six environmental interactions topics. **One** question will be from the Group 1 Interactions (Rural Land Resources, Rural Land Degradation and River Basin Management) and **one** question will be from the Group 2 Interactions (Urban Change and its Management, European Regional Inequalities, and Development and Health). Each question will be worth 25 marks giving a total for this paper of 50 marks. Paper 2 lasts for 1 hour 15 minutes.

**How will I be graded?**

The course award is based on your score from both parts of the exam paper (100 marks). The pass mark is 50% and there are three levels of pass: C = 50%+, B = 60%+, A = 70%+.

**What grade should I be aiming for?**

You should set yourself the personal target of achieving the best possible, realistic grade following discussion with your guidance teacher and geography teacher. This **target setting** will be based on several factors: your average grade at Standard Grade (your Grade Point Average) along with your attainment in Standard Grade Geography or Intermediate 2 Geography, your on-going performance in the Higher course and the entry requirements for your planned college or university course or career.

**How do I prepare for the assessments?**

You must work hard throughout the session with the aim of passing all of the end-of-unit assessments at the first sitting. You need to revise regularly at home, using revision techniques which you know from experience suit your particular ways of learning, and particularly so in the week before each end-of-topic assessment. In Section 2 of this guide there is a list of 'Can-Do's' which you should use as a checklist before each unit assessment, your prelim exam and the external exam. If there are sections of work which you are not sure about, or if you are having any difficulties, you should ask your teacher for help and advice.

**How much homework will I get?**

Homework is an important part of the course and you must accept responsibility for completing the work on time and to the best of your ability. You will be given a variety of tasks to do on a regular basis.

Some are very short (e.g. finishing off class-work) and you will be expected to complete these for the following day. You may be given one week or longer to complete some lengthier tasks so that you can plan your time, thus avoiding being overloaded with work on any particular evening. You should also make time to read your textbooks at home as these include additional material which we do not have time to cover in class. Your teachers will try to avoid giving you large pieces of homework during the week prior to an assessment.

### **Which Core Skills will I achieve in Higher Geography?**

You will develop a range of skills throughout the course and a pass in Higher Geography will automatically give you the Core Skills components of Critical Thinking (Problem Solving) and Using Graphical Information (Numeracy). These will be credited to you when you pass the course, and will be shown on your SQA certificate.

### **What can I go on to once I've passed my Higher Geography?**

If you are in S5, you might decide to progress to Advanced Higher Geography in S6. Alternatively, you might consider doing a course or units in one of the other Social Subjects (History or Modern Studies). Some schools also offer other related courses or units such as Geology, Travel and Tourism, and Managing Environmental Resources. After leaving school you could progress to HNC/D awards in college, or a degree course in university, or you might go straight into full-time employment.

### **Will Higher Geography be a useful qualification?**

Geography is a 'bridge' between the Arts and the Sciences, and Higher Geography is therefore recognised as a valuable qualification for both the Arts and Science faculties of universities. A background in Geography is also useful in a wide range of careers, including work in recreation and tourism, town and country planning, teaching, civil engineering, conservation, transport, surveying, the civil service, agriculture, forestry, fish farming, meteorology, geophysics, oceanography and environmental sciences.

The following tables summarise the structure of the Higher Geography course, the unit and course content and the assessment arrangements.

## Summary of course structure

### Geography: Unit 1 – Physical Environments

Outcome 1	You will be able to explain the major systems of physical geography: Atmosphere, Hydrosphere, Lithosphere and Biosphere
Outcome 2	You will be able to apply, interpret and analyse a range of methods (GMTs) for presenting, analysing and interpreting information within the context of the major systems of physical geography

### Geography: Unit 2 – Human Environments

Outcome 1	You will be able to explain the major systems of human geography: Population geography, Rural geography, Industrial geography and Urban geography
Outcome 2	You will be able to apply, interpret and analyse a range of methods (GMTs) for presenting, analysing and interpreting information within the context of the major systems of human geography

**Geography: Unit 3 – Environmental Interactions**

<b>Outcome 1</b>	<b>You will be able to describe and explain physical features and human activities relating to a selected environmental interaction from the following list: Rural Land Resources, Rural Land Degradation, River Basin Management, Urban Change and its Management, European Regional Inequalities, Development and Health</b>
<b>Outcome 2</b>	<b>You will be able to interpret and analyse complex geographical information in the context of the environmental interaction</b>
<b>Outcome 3</b>	<b>You will be able to evaluate possible strategies for the environmental management of the consequences of the interaction</b>

**Note**

The Outcomes listed above relate to individual units. You should be aware that for course assessment of Unit 3, two environmental interactions must be studied.

**Unit 1: Physical Environments: Content**

<b>Atmosphere</b>	<b>Hydrosphere</b>
<p>The characteristics of the atmosphere vary spatially and provide climate and weather conditions which interlink with other systems.</p> <p><b>Global scale</b></p> <ul style="list-style-type: none"> <li>• effects of the atmosphere on receipt of radiation across the earth</li> <li>• redistribution of energy patterns: atmospheric and oceanic circulation</li> <li>• global climate change.</li> </ul> <p><b>Regional scale</b></p> <p>Case study of Tropical Africa</p> <ul style="list-style-type: none"> <li>• nature, origin and movement of air masses: convergence and divergence of air masses</li> <li>• weather types associated with different air masses</li> <li>• the effect of these on West African climates.</li> </ul>	<p>The water cycle, which constitutes a major physical system, operates on a variety of scales. On the Earth's surface, the movement of water is a major agent in the formation of landforms and landscapes.</p> <p><b>Hydrological cycle</b></p> <ul style="list-style-type: none"> <li>• components of the global hydrological cycle</li> <li>• movement of water within drainage basins – input, storage and outputs.</li> </ul> <p><b>Fluvial (river) landforms and landscapes</b></p> <ul style="list-style-type: none"> <li>• effects of flowing water in terms of erosion, transportation and deposition and the resultant landforms of the upper, middle and lower sections of river basins</li> <li>• formation of characteristic landscape features within a drainage basin</li> <li>• river features on OS maps.</li> </ul>

<b>Lithosphere</b>	<b>Biosphere</b>
<p>The lithosphere displays a range of landforms and patterns which can be explained by reference to a variety of processes on different scales.</p> <p><b>Regional landscapes</b></p> <ul style="list-style-type: none"> <li>• Influence of rock structure, rock type, weathering and mass movement, erosion and deposition on the development of three different landscape types in Britain: <ul style="list-style-type: none"> <li>– glaciated uplands</li> <li>– coasts</li> <li>– upland limestone</li> </ul> </li> <li>• Characteristic features of these landscapes and their identification on OS maps.</li> </ul>	<p>Soils and vegetation can be viewed as ecosystems which are a set of interacting components.</p> <p><b>Soils</b></p> <ul style="list-style-type: none"> <li>• properties and formation of soils with reference to podzols, brown earth and gleys</li> <li>• influence of soil-forming processes.</li> </ul> <p><b>Vegetation</b></p> <ul style="list-style-type: none"> <li>• evolution of vegetation communities as ecosystems to climax stages as demonstrated by vegetation succession on coastal dune belts.</li> </ul>

**Unit 2: Human Environments: Content**

<b>Population Geography</b>	<b>Rural Geography</b>
<p>Population change and structure vary spatially and over time. The reasons for change are complex and involve human and environmental factors.</p> <p><b><i>Demographic systems</i></b></p> <ul style="list-style-type: none"> <li>• birth rates, death rates and migration</li> <li>• measuring population using the census</li> <li>• demographic transition model.</li> </ul> <p><b><i>Population change</i></b></p> <ul style="list-style-type: none"> <li>• reasons for population change.</li> <li>• population structure of EMDCs and ELDCs</li> <li>• implications of population change for EMDCs and ELDCs.</li> </ul> <p><b><i>Migration</i></b></p> <ul style="list-style-type: none"> <li>• classification and analysis of migration types: e.g. international, rural-urban, forced, long/short term</li> <li>• studies of contemporary migration streams.</li> </ul>	<p>Rural populations are involved in a variety of agricultural systems. These systems and associated landscapes are subject to change.</p> <p><b><i>Agricultural systems</i></b></p> <ul style="list-style-type: none"> <li>• shifting cultivation</li> <li>• intensive peasant farming</li> <li>• commercial arable farming.</li> </ul> <p><b><i>Rural landscapes</i></b></p> <ul style="list-style-type: none"> <li>• the landscapes including field and infrastructural patterns associated with different agricultural systems.</li> </ul> <p><b><i>Rural change (post-1950)</i></b></p> <ul style="list-style-type: none"> <li>• agricultural and landscape changes associated with the agricultural systems listed above</li> <li>• reasons for and implications of change.</li> </ul>

<b>Industrial Geography</b>	<b>Urban Geography</b>
<p>Industrial concentrations contain a range of manufacturing and other economic activities. These concentrations develop and change spatially over time. Case study of a major EU industrial area.</p> <p><b><i>Industrial systems</i></b></p> <ul style="list-style-type: none"> <li>• classification of industry</li> <li>• location factors and change over time.</li> </ul> <p><b><i>Industrial landscapes</i></b></p> <ul style="list-style-type: none"> <li>• diversity of industrial landscapes and their environmental consequences</li> <li>• explanation of industrial locations and landscapes on OS maps.</li> </ul> <p><b><i>Industrial change</i></b></p> <ul style="list-style-type: none"> <li>• reasons for and implications of industrial change.</li> </ul>	<p>Urban settlements provide a range of employment, services and residential opportunities which may be located in different parts of the settlements. Case study of a city in an EMDC.</p> <p><b><i>Urban systems</i></b></p> <ul style="list-style-type: none"> <li>• characteristics of urban systems: site, situation growth and function.</li> </ul> <p><b><i>Urban zones</i></b></p> <ul style="list-style-type: none"> <li>• commercial, industrial and residential landscapes</li> <li>• identification of zones on OS maps.</li> </ul> <p><b><i>Urban change (post-1950)</i></b></p> <ul style="list-style-type: none"> <li>• processes of change, reasons for and implications of change.</li> </ul>

**Units 1 and 2 (Physical and Human Environments): Skills****Unit 1**

<b>Atmosphere</b>	<ul style="list-style-type: none"><li>• interpreting climatic maps, diagrams and graphs</li><li>• constructing and analyzing climate graphs</li></ul>
<b>Hydrosphere</b>	<ul style="list-style-type: none"><li>• constructing and analysing hydrographs</li><li>• presenting and interpreting river flow data</li></ul>
<b>Lithosphere</b>	<ul style="list-style-type: none"><li>• identifying and labeling main landscape features on maps, aerial photographs and sketches</li><li>• constructing and interpreting cross-sections and transects</li></ul>
<b>Biosphere</b>	<ul style="list-style-type: none"><li>• analysing soil profiles and data from soil surveys</li><li>• interpreting and explaining data from vegetation surveys and distributions with reference to plant succession on sand dunes</li></ul>

**Unit 2**

<b>Population geography</b>	<ul style="list-style-type: none"> <li>• interpreting population data in map, tabular and diagrammatic form, including population pyramids</li> <li>• interpreting flow diagrams showing migration streams</li> </ul>
<b>Rural geography</b>	<ul style="list-style-type: none"> <li>• analysing land-use data and crop yields in map, diagrammatic and tabular form.</li> <li>• analysing farm survey results</li> <li>• annotating and analysing field sketches and photographs of rural landscapes</li> </ul>
<b>Industrial geography</b>	<ul style="list-style-type: none"> <li>• annotating and analysing field sketches and photographs of old and new industrial landscapes</li> <li>• analysing industrial and employment survey results</li> </ul>
<b>Urban geography</b>	<ul style="list-style-type: none"> <li>• analysing land-use maps, transects and survey data – pedestrian and traffic counts, spheres of influence, commuter flows</li> <li>• analysing and annotating field sketches and photographs of urban landscapes</li> </ul>

**Unit 3 (Environmental Interactions): Skills**

- identifying and labeling main landscape features on diagrams, aerial photographs and sketches
- interpreting and analysing maps, data, diagrams, surveys, photos, transects, sketches and graphs.

**Unit 3: Environmental Interactions: Content*****Group 1: Physical*****Rural land resources: Case studies in the UK**

Rural land resources are the product of the interaction of a wide range of physical factors modified by human activity. The resultant rural landscapes offer a variety of physical, economic and social opportunities:

- physical characteristics of glaciated upland, upland limestone and coastal landscapes
- physical and human factors involved in the evolution of these landscapes
- economic and social opportunities in these landscape areas: e.g. agriculture, forestry, recreation, minerals, industry and water storage
- environmental problems and conflicts in one upland and one coastal area with reference to protected areas, e.g. National Parks, SSSIs, ESAs
- impact of UK and EU policies on rural land use.

**Rural land degradation: Case studies in North America and either Africa north of the Equator or the Amazon basin**

Rural land resources are subject to degradation, which may be the result of natural processes, human activity, or a combination of both. The decline in land productivity and other consequences of land degradation have direct social and economic consequences, and have led to the development of soil conservation and land management strategies.

- the nature and processes of soil erosion and degradation
- effects of climate on soil erosion
- modifications of ecosystems resulting from human activity
- physical, social and economic consequences of soil erosion on the land and people
- soil conservation and land management strategies.

**River basin management: Case study in either Africa or North America or Asia**

Within river basins, water control projects are undertaken for a variety of reasons and on a range of scales. These projects are examples of human interference with systems, especially hydrological systems. The changes often have both beneficial and adverse consequences.

- general distribution of basins and water control projects in Africa or North America or Asia
- physical and human characteristics of the case-study river, and the need for water resource management
- the hydrological cycle of the case-study river, before and after dam building
- physical and human influences on dam sites, storage, transfer and use of water
- social, economic, political and environmental benefits and adverse consequences.

**Group 2: Human**

**Urban change and its management:** Two case studies: **one** city in an EMDC and **one** city in an ELDC

Most countries have large cities which are constantly changing. The urban environment changes in response to a wide range of environmental, social, economic, technological and political factors.

- distribution of major cities: the pattern of urban growth and development in the countries which have been selected for case studies
- physical and human factors affecting the location, development and land-use zones of the cities
- nature of urban change: population, industrial, housing, quality of life, environment and consequent inequalities
- management of urban change: planning controls and improvements to shanty towns
- environmental conflicts within and around the urban area.

**European regional inequalities:** Case study of the EU with reference to the UK and one other member state.

There are many inequalities within the EU and between the regions of EU countries. There are physical, social and economic reasons for the inequalities, and the EU and individual countries have developed policies to tackle them.

- broad EU patterns of regional inequality
- explanations for the patterns
- regional patterns and inequalities within the case-study countries
- impact of national and EU policies on regional inequalities.

**Development and health: Case studies from ELDCs**

**Inequality of social and economic development is a major feature of the modern world. The inequalities in the developing world exist on a variety of scales and can be measured in various ways. Levels of health and disease are major indicators of the level of development, and can be explained by studying a variety of processes.**

- **measurement of inequality using social, economic and composite methods**
- **differences in levels of development between and within countries**
- **physical and human factors involved in health and disease with reference to one of the following diseases : bilharzia (schistosomiasis), cholera, malaria**
- **strategies for improving health and controlling disease.**

## Summary of assessment arrangements

### Higher Geography

#### *Internal end-of-unit tests: leading to the three UNIT awards*

**Unit 1: Physical Environments**

Two compulsory Physical questions  
One compulsory Physical GMT question

Physical questions worth 10 marks each  
GMT question worth 5 marks

total marks: 25  
assessment time: 45 minutes

**Unit 2: Human Environments**

Two compulsory Human questions  
One compulsory Human GMT question

Human questions worth 10 marks each  
GMT question worth 5 marks

total marks: 25  
assessment time: 45 minutes

**Unit 3: Environmental Interactions**

One compulsory question on one Environmental Interaction

Question total: 25

total marks: 25  
assessment time: 45 minutes

**External examination: leading to the overall COURSE award****Paper 1: Physical and Human Environments**

2 compulsory Physical questions  
2 compulsory Human questions

1 question from a choice of 2 Physical topics  
1 question from a choice of 2 Human topics

(GMTs are included within questions)

OS maps may be used in any question

9 marks for each of the 4 compulsory questions  
7 marks for each of the remaining questions

total marks: 50  
exam time: 1 hour 30 minutes

**Paper 2: Environmental Interactions**

Choice of 2 questions from 6, i.e.  
1 from Section 2 (Physical)  
1 from Section 2 (Human)

25 marks for each question

total marks: 50  
exam time: 1 hour 15 minutes

**Total exam time: 2 hours 45 minutes**  
**(There is a 20-minute break between Papers 1 and 2)**  
**The exam grade is based on the total score from both exam papers**  
**(/100)**  
**Pass: 50% of paper. C = 50%; B = 60%; A = 70%**



**How to use the 'Can-Do' checklists**

This section provides you with lists of Can-Do's for each of the Physical Environments, Human Environments and Environmental Interactions topics. They are statements of what you should be able to do by the end of each topic.

The checklists should be used as a revision aid prior to end-of-unit tests, prelims and the external exam. If there are some Can-Do's which you feel you are weak on, pay particular attention to these sections of work when you are revising. If you are still unsure about a Can-Do, ask your teacher for further help or advice.

**Atmosphere: Can-Do checklist*****Physical Environments***

By the end of this topic you should be able to:

- explain, with the aid of an annotated diagram, why Tropical latitudes receive more of the sun's energy than Polar regions
- explain why there is a net gain of solar energy in the Tropical latitudes and a net loss towards the Poles
- describe the role of atmospheric circulation in the redistribution of energy over the globe
- describe and explain the earth's energy exchanges shown on a diagram
- describe the factors which affect the amount of sunlight reflected from the earth's surface
- describe and account for the pattern of atmospheric circulation and global winds
- describe and account for the pattern of ocean currents shown on a world map
- describe the variations in global temperatures for the last 100 years (shown e.g. on a graph), and suggest both physical and human reasons for these variations
- describe and explain the origin, nature and weather characteristics of Temperate Maritime (mT) and Tropical Continental (cT) air masses which affect West Africa
- with reference to the Inter-Tropical Convergence Zone and the movement of air masses, describe and account for the variations in West African rainfall distribution.

***GMTs***

- *describe and interpret climate maps, diagrams and graphs*
- *construct and analyse climate graphs*
- *describe and explain climate graphs*
- *comment on the accuracy of statements which describe climate patterns shown on maps, etc.*

## **Hydrosphere: Can-Do checklist**

### ***Physical Environments***

By the end of this topic you should be able to:

- draw a diagram to show the global hydrological cycle
- describe the global hydrological cycle shown on a diagram
- explain how balance is maintained within the hydrological cycle
- explain how water moves within drainage basins.

Use an OS map to:

- describe the physical characteristics of a river and its valley
- compare and contrast the physical features of two rivers and their valleys
- annotate a base map to show the physical characteristics of a river and its valley.

With the aid of a diagram(s):

- explain the formation of selected physical features of a river and its valley: e.g. waterfall, levee, river terrace, meander, braiding, flood plain, alluvial fan
- explain the effects of flowing water in terms of erosion, transportation and deposition in the upper, middle and lower course of a river
- describe and explain the patterns shown on a river hydrograph.

### ***GMTs***

- *annotate sketches and diagrams to describe and explain river features*
- *construct and analyse river hydrographs to show the relationship between rainfall and river flow*
- *describe methods used to collect river-flow data: e.g. measuring depth, width, speed, gradient*
- *describe methods used to present river-flow data: e.g. labeling sketches, drawing cross sections, showing speed, drawing graphs including scattergraphs to show relationship between speed and gradient*
- *comment on the accuracy of statements which refer to river characteristics.*

**Lithosphere: Can-Do checklist*****Physical Environments***

By the end of this topic you should be able to:

Use an OS map to:

- identify and describe the features of glaciated upland landscapes, coastal landscapes and upland limestone landscapes, referring to specific named map features
- describe and account for the relief in these areas and the influence of physical factors on the drainage pattern
- describe and explain the map evidence which shows an area has been changed by weathering and erosion.

With the aid of annotated diagrams, describe and explain the processes involved in the formation of:

- glaciated features, both erosional and depositional: e.g. arete, hanging valley, roche moutonnée, esker, drumlin, kame.
- upland (carboniferous) limestone features – e.g. limestone pavement, scar, gorge, stalactite and stalagmite)
- coastal features – e.g. headland, cliff, wave-cut platform, arch, cave and stack, beach, longshore drift, spit, bar
- explain how a landscape in a sketch has been formed.

***GMTs***

*Identify and label the main landscape features on maps, aerial photographs and sketches: e.g.*

- *label a sketch map to show features of a carboniferous limestone landscape*
- *label an aerial photograph to show features of a coastal landscape*
- *annotate a sketch diagram to show features of glacial erosion*
- *annotate a sketch to explain how a landscape feature was formed.*

*Construct and interpret cross-sections and transects: e.g.*

- *draw a sketch section and annotate it to show the main features of relief and drainage of an area of upland limestone*
- *add written information to a cross section of a corrie.*

*Comment on the accuracy of statements which refer to physical landscapes.*

**Biosphere: Can-Do checklist*****Physical Environments***

By the end of this topic you should be able to:

- draw annotated diagrams to describe the properties of podsoles, brown forest soils, and gley soils, referring to horizons, colour and texture
- recognise and describe the properties of soils from a soil profile
- describe and explain the effects of climate, relief and drainage on the formation of podsoles, brown forest soils, and gley soils.
- Explain the term 'ecosystem'
- explain fully what is meant by the term 'climax vegetation'
- describe and explain the changes in the types of plants (succession) to be found across a sand-dune transect, referring to the names of specific plants
- explain why vegetation finds it difficult to grow on sand dunes
- describe how coastal plants are adapted to survive in sand-dune habitats

***GMTs***

- *describe and analyse podzol, brown earth and gley profile*
- *describe and analyse data from soil surveys shown, e.g. on a soil catena*
- *describe, interpret and explain data from vegetation surveys and distributions with reference to plant successions on sand dunes shown, e.g. on cross sections and transects*
- *comment on the accuracy of statements which describe soil and vegetation patterns shown on maps, etc.*

## **Population Geography: Can-Do checklist**

### ***Human Environments***

By the end of this topic you should be able to:

Understand terms relating to demographic trends such as:

- Crude Birth Rate, Crude Death Rate, Natural Increase Rate, Life Expectancy, Infant Mortality Rate

Interpret population pyramids of both EMDCs and ELDCs, and:

- describe and account for the population structures
- describe and suggest reasons for changes which have taken place in the population structure
- discuss the consequences which the population structure will have in future for the country's economy and people
- compare the differing patterns of death by age group between EMDCs and ELDCs, and suggest reasons for the differences.
- describe the problems arising from falling birth rates in EMDCs.
- describe the advantages which a fall in birth rate and in death rate can bring to ELDCs
- explain why ELDCs may find collection of population data more difficult than EMDCs, and why the quality of data may be less reliable.

With reference to any population migration between two named countries:

- explain the migration in terms of push and pull factors, and suggest the types of barriers which may make it difficult
- discuss the advantages and disadvantages which the migration has brought to both the losing country and the receiving country.

Choosing one or more of the stages from the demographic transition model:

- describe and explain the factors which affect population growth
- referring to case studies, discuss the factors which have influenced the changes in birth rate and in death rate.

### ***GMTs***

- *describe and interpret population data shown in maps, tables and diagrams, including population pyramids*
- *describe and interpret maps and flow diagrams with proportional arrows showing migration streams*
- *show population data by drawing appropriate maps or diagrams*
- *comment on the accuracy of statements which describe population patterns shown on tables, diagrams, graphs, etc.*

## Rural Geography: Can-Do checklist

### *Human Environments*

By the end of this topic you should be able to:

For **each** of the following farming systems – shifting cultivation, intensive peasant farming (e.g. paddy cultivation), and commercial arable farming (e.g. cereal production):

- describe and explain the main farming features and methods
- explain the population density associated with the farming system
- describe the farming changes which have taken place since 1950
- discuss the benefits and problems resulting from the changes
- assess the impact of changes on people, ways of life and the landscape
- comment on successes and problems resulting from the changes.

Referring to a named area of shifting cultivation (a case study such as the Amazon):

- describe and explain how crop outputs decline over time
- suggest possible reasons for a reduced fallow period, and explain the likely impact on soils.

Referring to a named area of intensive peasant farming (a case study such as the Punjab):

- describe the traditional methods of rice production
- describe changes in crop production, and suggest general reasons for increased crop yields due to e.g. the 'Green Revolution'.

Referring to a named area of commercial arable farming (a case study such as the American Prairies):

- describe how physical and human factors have affected the farming activities, and comment on their relative importance
- explain the settlement pattern which has developed.

### *GMTs*

- *describe and analyse land-use data and crop yields in maps, diagrams and tables*
- *analyse farm survey results shown, e.g. in tables*
- *annotate and analyse field sketches and photographs of rural landscapes*
- *comment on the accuracy of statements which describe farming patterns shown on maps, diagrams, tables, etc.*

## **Industrial Geography: Can-Do checklist**

### ***Human Environments***

By the end of this topic you should know:

- the different types of industry, e.g. primary, secondary, tertiary, quaternary
- the main features of an industrial system
- the factors which influence the location of industry.

Use an OS map to:

- describe the advantages (location factors) of a particular site for manufacturing industry in the past, or new industries at the present time
- describe the environmental impact of the industrial development
- describe the features of both old and new industrial landscapes.

For any **named** industrial concentration in the EU (a case study such as the Ruhr):

- explain the physical factors which led to the growth of early industry (outline the geographical reasons behind the area's former prosperity)
- describe the past and present distribution of coal mining and related activities
- suggest the likely impact of coal mining and related activities on the environment of the area
- suggest reasons for the area's subsequent decline
- describe and explain the recent industrial changes and discuss their impact on the area
- describe ways in which the landscape has changed as a result of regeneration
- describe and comment on the success of steps taken to bring about redevelopment
- suggest why human and economic factors have become more important in accounting for the location of industries today
- describe the locational factors which play a part in attracting foreign manufacturing industries to the area.

**GMTs**

- *annotate and analyse field sketches and photographs of old and new industrial landscapes*
- *describe and analyse industrial and employment survey results: e.g. describe and explain employment changes or industrial patterns shown in a table, and suggest possible future trends*
- *comment on the accuracy of statements which describe industrial patterns shown on maps, tables, etc.*

## Urban Geography: Can-Do checklist

### ***Human Environments***

By the end of this topic you should be able to:

Use an OS map to:

- identify the CBD of a settlement, quoting map evidence to explain your choice
- compare the CBD of two settlements, referring to location and land use
- identify the different land-use zones from the CBD to the suburbs, using map evidence to justify your decisions
- describe the site of particular urban zones
- account for the location of the zones within the town
- give map evidence to suggest the likely function of a settlement (e.g. industrial town or holiday resort)
- describe and contrast features of the urban landscape of selected areas (urban zones)
- explain why the environments of particular zones are so different
- comment on the likely quality of the environment
- suggest the impact of new developments in particular urban zones
- describe the problems caused by new developments
- describe and account for differences in land use from the CBD to the suburbs (shown in a sketch map or diagram).

For any named city in an EMDC:

- show how its location and site encouraged its growth
- describe and account for the likely land uses to be observed in the CBD
- describe and explain the changes which have taken place in the CBD and the old inner-city area
- explain why changes were necessary and comment on their success
- describe the impact of new developments since 1950 and discuss problems resulting from changes

### ***GMTs***

- *describe and analyse land-use maps, transects and survey data showing, e.g. land-use changes from the CBD to the suburbs, pedestrian and traffic counts, spheres of influence, and commuter flows*
- *annotate and analyse field sketches and photographs of urban landscapes*
- *comment on the accuracy of statements which describe urban patterns shown on maps, transects, tables, etc.*

**Rural Land Resources: Can-Do checklist*****Group 1 Environmental Interactions (Physical)***

By the end of this topic you should be able to:

For any **named** glaciated mountain area in the UK:

- with the aid of annotated diagrams, describe and explain the formation of a range of glaciated features
- describe the physical factors which limit human activity
- explain why the glaciated landscape attracts tourists, but restricts other forms of economic activity (e.g. agriculture, forestry, industry).

For any **named** upland limestone area in the UK:

- with the help of annotated diagrams, describe and explain the relief and drainage, mentioning both surface and underground features
- explain the restrictions on economic development imposed by the landscape.

For any **named** coastal area in the UK:

- describe and explain the formation of features such as headlands, bays, stacks, caves, arches, spits and longshore drift
- explain the restrictions on economic development imposed by the landscape.

For one upland area **and** one coastal area:

- explain the social and economic opportunities provided by the landscape
- give detailed examples of environmental conflicts that may have arisen
- discuss environmental conflicts in the area and assess the ways in which they are resolved.

Within the context of National Parks:

- explain why the pattern of land ownership may make management difficult
- put the case for and against the creation of National Parks in Scotland.

For any EU agricultural schemes (e.g. Set-aside, ESAs, quota schemes):

- describe the schemes and their aims
- discuss their advantages and disadvantages
- comment on their effectiveness.

**Rural Land Degradation: Can-Do checklist*****Group 1 Environmental Interactions (Physical)***

By the end of this topic you should be able to:

Referring to detailed case studies you have studied in North America **and either** Africa north of the equator **or** the Amazon basin:

- describe the physical factors which have led to severe land degradation
- describe and explain the main processes of wind erosion
- describe the location and distribution of areas of desertification shown on a world map
- describe the rainfall patterns shown in maps and diagrams, and explain how rainfall variability may contribute to soil erosion and land degradation
- describe the main human activities which have led to severe land degradation
- describe and explain how deforestation and inappropriate farming practices such as monoculture, overgrazing, over-cultivation and poor irrigation methods can lead to soil erosion
- explain fully the likely effects of the removal of vegetation cover on land and people
- describe and explain the impact of rural land degradation on people and the environment
- outline the social, economic and environmental consequences of rural land degradation
- identify and describe some of the methods of soil conservation
- explain how each strategy helps to conserve soil and reduce land degradation
- comment on the effectiveness of these methods.

**River Basin Management: Can-Do checklist*****Group 1 Environmental Interactions (Physical)***

By the end of this topic you should be able to:

- describe and explain the general distribution of river basins and water control projects in North America **or** Africa **or** Asia
- use a range of maps, climate graphs, tables and river hydrographs for **any** river basin in North America or Africa or Asia to explain why there is a water supply problem and why the water storage scheme is essential, and
- describe ways in which the river's flow has changed since the building of dams
- discuss the advantages and disadvantages of water storage in areas of permeable and impermeable rock.

Referring in detail to the **named** river basin which you have studied (e.g. the River Nile **or** the Colorado):

- explain why there was a need for river basin management
- show how the physical characteristics of the basin have created both the need for and potential for water resource management, referring to factors such as climate, rock type and structure, landforms, soils and vegetation
- explain the physical factors which had to be considered when selecting sites for dams and reservoirs
- explain how the scheme affects the hydrological cycle of the basin
- describe and account for the social, economic and environmental benefits and adverse consequences (disadvantages) of the water control projects in the basin
- evaluate the success of the scheme in terms of its social, economic, political and environmental impact
- explain the political problems which have resulted or may result from management of the river
- suggest why political considerations might hinder the success of the project.

## **Urban Change and its Management: Can-Do checklist**

### ***Group 2 Environmental Interactions (Human)***

By the end of this topic you should be able to:

With reference to **named countries and cities** which you have studied in **both EMDCs and ELDCs**:

- describe and explain the changing patterns of urban growth in the cities and explain their different growth rates
- suggest reasons why city centres suffer from traffic congestion
- describe and account for the variations in land-use values across cities
- assess the accuracy of statements which describe urban patterns shown on maps, tables of statistics, etc.
- describe and explain the distribution of cities in any named developing country
- compare and contrast the land-use pattern of a city in a developing country with that shown in a model of urban zones.

For any **named city** in an EMDC (e.g. London):

- describe and explain the distribution of services such as shopping centres
- explain the factors that create traffic congestion
- describe and assess the impact of policies aimed at reducing traffic congestion
- describe the ways in which problems such as poor housing, traffic congestion, high land values, pollution, lack of open space, social inequalities and industrial decline have been tackled, and comment on the effectiveness of solutions
- describe and explain the problems which have arisen recently in the CBD or inner city, and suggest ways in which these problems might be solved
- describe and explain the changes in population, industry, employment, housing and infrastructure which have resulted from redevelopment
- suggest why many people have moved outwards from the city, and describe the land-use conflicts which have developed as a consequence of this movement
- describe the efforts made to reverse or contain this outward movement
- explain why Green Belts have been established on the rural–urban fringe
- outline the land-use conflicts which have developed on the periphery
- describe the ways in which the fringe areas are under threat, or are likely to be in the future.

For any **named** city in an ELDC (e.g. Sao Paulo):

- describe and explain the physical and human factors involved in its site and growth
- describe and account for its growth in terms of rural push and urban pull factors
- describe the social, economic and environmental problems which have been created by the city's rapid growth
- describe and explain the variations in housing quality
- describe the methods used to improve the quality of the poorer residential areas, and comment on the effectiveness of the methods used
- describe and explain the location of and growth of shanty towns
- describe the problems associated with shanty towns, describe any improvements which have been brought about and assess how effective these have been.

**European Regional Inequalities: Can-Do checklist*****Group 2 Environmental Interactions (Human)***

By the end of this topic you should be able to:

- describe the general socio-economic patterns shown on maps of the EU: e.g. 'Unemployment Rates', 'Economic Potential', 'Euro-Core and Periphery'
- suggest the types of socio-economic indicators which can be used to produce such maps, and comment on the usefulness of these indicators
- suggest possible reasons for socio-economic patterns shown on maps of the EU, referring to physical, social, political and economic factors
- comment on the accuracy of statements which describe socio-economic patterns shown on maps of the EU
- describe the problems faced by peripheral EU areas, outline the steps taken to solve the areas' difficulties, and comment on the effectiveness of these steps.

Referring to case studies or named areas you have studied in the UK **and** one other EU country:

- describe the socio-economic patterns shown on maps of individual EU countries: e.g. 'Regional Unemployment Rates', 'GNP per Capita'
- comment on the accuracy of statements which describe socio-economic patterns shown on maps of individual EU countries
- describe and explain the physical and human factors which have led to regional inequalities: e.g. 'North-South Divides'
- describe the social, economic and environmental problems which occur in named poorer regions of the EU
- outline the steps taken by the EU and national governments to assist the development of poorer regions, reduce regional unemployment, and help solve some of the problems caused by regional inequalities
- comment on the effectiveness of these steps.

**Development and Health: Can-Do checklist*****Group 2 Environmental Interactions (Human)***

By the end of this topic you should be able to:

- identify and describe examples of economic and social indicators of development (such as GNP per capita) which might be used to show socio-economic differences between countries, and suggest how the indicators might illustrate the level of development of a country
- describe differences in the level of development between countries (from a table) and suggest reasons for the differences
- suggest examples of socio-economic indicators of development which could be used to produce world maps showing, e.g. 'Economically more developed and less developed countries', 'World human development index', 'Physical quality of life index', and 'High-, middle- and low-income countries', and comment on their usefulness
- describe and account for similarities and differences between the patterns shown by such world maps
- referring to any composite measure of development, such as the 'Human development index', describe the development indicators which might be used in its calculation and comment on their usefulness.

Referring to case studies you have studied within ELDCs:

- describe and suggest reasons for variations in levels of development between countries
- explain why development indicators such as GNP per capita may not accurately reflect differences in the real standard of living or quality of life within countries
- explain the factors which lead to malnutrition and the downward spiral of sickness and poverty
- describe and suggest reasons for differences in the provision of safe water and sanitation between urban and rural areas (shown, e.g. in a table or map)
- discuss the physical and human factors which might be responsible for wide variations in life expectancy (shown, e.g. in a table or map).

For any named infectious disease or water-related disease in the ELDCs:

- describe the physical (environmental) and human factors which can contribute to the spread of the disease and put people at risk
- describe the methods used to control the disease, and comment on their success.

**Referring to case studies you have studied in the ELDCs:**

- explain why a lack of clean water and inadequate sanitation often lead to high disease rates, and suggest how water and sanitation problems have been tackled
- suggest why childhood mortality rates are so high, describe the steps being taken to reduce the causes of child deaths, and comment on their effectiveness
- describe and explain the primary health care methods used to improve standards of health, and explain why these are appropriate policies for improving health standards
- explain how disease prevention will benefit ELDCs.