

IMPORTANT NOTICE

University of Cambridge International Examinations (CIE) in the UK and USA

With effect from the June 2003 examination University of Cambridge International Examinations will only accept entries in the UK and USA from students registered on courses at CIE registered Centres.

UK and USA private candidates will not be eligible to enter CIE examinations unless they are repatriating from outside the UK/USA and are part way through a course leading to a CIE examination. In that case a letter of support from the Principal of the school which they had attended is required. Other UK and USA private candidates should not embark on courses leading to a CIE examination after June 2003.

This regulation applies only to entry by private candidates in the UK and USA. Entry by private candidates through Centres in other countries is not affected.

Further details are available from Customer Services at University of Cambridge International Examinations.

GEOGRAPHY

GCE Advanced Subsidiary Level and GCE Advanced Level 9696

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NOTE

Please note the changes to the format of Papers 2 and 3 described in the Assessment section of the syllabus.

INTRODUCTION

This syllabus document provides details of Geography syllabuses for candidates working beyond O Level and IGCSE.

Candidates and Centres may choose:

- to take both Advanced Level components in the same session.
- to follow a **staged** assessment route to the Advanced Level by taking the Advanced Subsidiary qualification in an earlier examination session. Subject to satisfactory performance, such candidates are then only required to take the final part of the assessment.
- to take the Advanced Subsidiary qualification only.

Details may be found in the section headed Assessment.

The syllabus has been developed to provide continuity with the previous Advanced Level (9056, 9057 and 9059) syllabuses, whilst at the same time focusing on content and assessment methods that are relevant to present day thinking in Geography.

The distinct features include:

- an approach which provides as much continuity as possible with the previous CIE Advanced Level syllabuses in terms of topics;
- a balanced core that consists of a range of compulsory physical and human geography topics;
- the opportunity to teach and assess both physical and human geography topics and their inter-relationships in preparation for the Advanced Subsidiary examination;
- progression from the core established at the Advanced Subsidiary to the full Advanced Level by means of a range of optional physical and human geography topics;
- a variety of assessment techniques ranging from short structured and stimulus/data response questions to essay questions;
- a variety of assessment objectives such that candidates will be required to apply their knowledge and understanding, as well as undertake decision-making and evaluation;
- a scheme of assessment that allows flexibility for those taking the full Advanced Level syllabus;

Geography occupies a pivotal position in the understanding and interpretation of social, economic, political and environmental conditions and change, both spatial and temporal. The syllabus encourages geographers to become aware of the specific contribution which they can make to the understanding of contemporary issues and to the understanding of the complexity of natural systems, their linkages and their impact upon the human race. Equally as important is an understanding of the impact of the human race upon the environment and how this impact can be managed in achieving sustainable development. The study of environments is rooted in an understanding of physical processes, whilst throughout the syllabus the emphasis is on the study of real examples to illustrate the variety and complexity of human and physical environments.

AIMS

The aims of this syllabus describe the educational purposes of a course in Geography at Advanced Level. They include references to a number of attributes and qualities which cannot or should not be assessed by examination, but which nevertheless form an essential part of any Geography course. In this respect, the Aims differ from the Assessment Objectives which all refer to abilities which can be assessed.

Geography as a subject discipline; its content; role and value

The aims are to:

- develop awareness of the *relevance* or geographical analysis to understanding and solving contemporary human and environmental problems;
- introduce students to the main components of Physical and Human Geography and the inter-relationships between these components;
- encourage an understanding of the principal *processes* operating at different scales within Physical and Human Geography;
- develop a *sense of relative location*, including an appreciation of the complexity and variety of natural and human environments;
- demonstrate and explain the causes and effects of *change* over space and time on the natural and human environment;
- demonstrate the importance of *scale* in understanding Physical and Human Geography;
- make students aware of the *problems* of explanation (including data collection and processing) in Physical and Human Geography, and to give them an appreciation of the nature, value, limitations and importance of different approaches to analysis and explanation in Geography.

Skills and Attitudes

The aims are to:

- increase knowledge of, and ability to use and apply, *appropriate skills and techniques* relevant to the greater understanding and interpretation of facts and relationships in Physical and Human Geography;
- encourage a concern for *accuracy and objectivity* in collecting, recording, processing, analysing, interpreting and reporting data in a spatial context;
- develop the ability to *handle and evaluate* different types and sources of information;
- develop the skill to think logically, and to present an ordered and coherent *argument* in a variety of ways;
- promote an appreciation of the need for understanding, respect and co-operation in conserving the environment and improving the quality of life at both a global scale and within the context of different cultural settings.

ASSESSMENT OBJECTIVES

An Assessment Objective is an intended area of competence within the subject. Four are identified in Geography:

1 KNOWLEDGE

Candidates should be able to:

- 1.1 offer definitions and explanations of relevant geographical terms and concepts
- 1.2 show working knowledge of relevant principles, theories and models
- 1.3 recall accurately the location and character of selected places and environments
- 1.4 demonstrate knowledge of the physical and human processes at work.

2 UNDERSTANDING AND APPLICATION

Candidates should be able to:

- 2.1 understand the complex and interactive nature of physical and human environments
- 2.2 understand how processes bring changes in systems, distributions and environments
- 2.3 recognise the distinctiveness and the generality of places and environments
- 2.4 recognise the significance of spatial scale and of time scale
- 2.5 apply this geographical understanding to new contexts.

3 SKILLS AND ENQUIRY

Candidates should be able to:

- 3.1 collect, record and interpret a variety of information from primary (fieldwork) sources and secondary sources (e.g. statistical data)
- 3.2 interpret a range of map and diagram techniques displaying geographical information
- 3.3 assess methods of enquiry and consider the limitations of evidence
- 3.4 demonstrate skills of analysis and synthesis
- 3.5 use geographical understanding to develop their own explanations and hypotheses.

4 EVALUATION AND DECISION-MAKING

Candidates should be able to:

- 4.1 assess the effects of geographical processes and change on physical and human environments
- 4.2 consider the relative success/failure of initiatives and demonstrate a sense of judgement
- 4.3 analyse the viewpoints of different groups of people and identify conflicts of interest
- 4.4 assess the decision-making process in physical and human contexts
- 4.5 recognise a number of possible outcomes from a given situation.

ASSESSMENT

Scheme of assessment

Advanced Level candidates will take:

<p style="text-align: center;"><u>PAPER 1</u> CORE GEOGRAPHY 3 HOURS 50%</p>
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<p style="text-align: center;"><u>PAPER 2</u> ADVANCED PHYSICAL OPTIONS 1½ HOURS 25%</p>
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<p style="text-align: center;"><u>PAPER 3</u> ADVANCED HUMAN OPTIONS 1½ HOURS 25%</p>

Candidates may elect to **either** sit Paper 1 at an earlier examination session than Papers 2 and 3, **or** sit all Papers at the same examination session.

Advanced Subsidiary candidates will take:

<p style="text-align: center;"><u>PAPER 1</u> CORE GEOGRAPHY 3 HOURS 100%</p>

- At A Level, candidates need not take all the components for a qualification at the same examination session.
- Papers 2 and 3 assess the Advanced Geography Options. From June 2006 these will be separate 1½ hour examinations, but both will be timetabled for the same date and session. A short break, maximum 15 minutes, is allowed between Paper 2 and Paper 3.
- All papers will be available in June and November each year.
- Certification at Advanced Subsidiary and Advanced Level will, similarly, be available in both June and November each year.

Description of papers

Paper 1

The paper will be split into three sections which will assess the core topics of;

- Hydrology and fluvial geomorphology
- Atmosphere and weather
- Rocks and weathering
- Population change
- Settlement dynamics

Section A will consist of five compulsory questions based on the Physical and Human Core topics. Questions may either be based on a single topic or on a combination of topics. These questions will make use of a variety of resources, including survey maps in some instances, and so will be largely skill based. All questions will carry 10 marks. Although there are five core topics, it does not mean that there will always be one question set on each topic.

Section B

Candidates will be required to answer one question based on the Physical Core topics. Three questions will be set, one on each core topic.

Section C

Candidates will be required to answer one question based on the Human Core topics. Three questions will be set, with at least one question from each core topic.

In both Sections B and C, candidates will have a choice from three questions. In Section B there will be one question on each topic. In Section C one question will be set on each topic along with one other question that may be on a single topic or a combination of the two core human topics. The questions will be structured and will offer the opportunity for extended writing. Some questions will involve the use of stimulus material. All questions will carry 25 marks.

Papers 2 and 3

From June 2006 onwards Paper 2 and Paper 3 will be separate question papers. Both will be timetabled for the same date and session. Paper 2, Advanced Physical Options, will be 1½ hours in length, with scripts and question papers collected in at the end of the examination. A short break may be taken (maximum 15 minutes) before Paper 3, Advanced Human Options, is issued to candidates. Paper 3 will also be 1½ hours in length. As at present, scripts for Paper 2 and Paper 3 are to be despatched separately. All candidates for A level Geography must take Papers 2 and 3 in the same session.

Paper 2 will be concerned with Advanced Physical Geography Options. Candidates will be required to answer two questions, *each on a different topic*. Two questions will be set on each topic;

- Tropical environments
- Coastal environments
- Hazardous environments
- Arid and semi-arid environments

Paper 3 will be concerned with Advanced Human Geography Options. Candidates will be required to answer two questions, *each on a different topic*. Two questions will be set on each topic;

- Production, location and change
- Environmental management
- Global interdependence
- Economic transition

In both papers the questions will be structured and may involve the interpretation of data as well as opportunities for extended writing. There will be two questions set on each Option topic. All questions will carry 25 marks.

Specification Grid

The relationship between the Assessment Objectives and the components of the examination(s) is set out in the table below. These objectives are weighted to give an indication of their relative importance, rather than to provide a precise statement of the percentage mark allocation to particular assessment objectives.

Assessment Objective	Paper 1	Papers 2 and 3	Advanced Subsidiary	Advanced Level
Knowledge	30%	35%	30%	32.5%
Understanding	30%	35%	30%	32.5%
Skills and Enquiry	20%	10%	20%	15%
Evaluation and Decision Making	20%	20%	20%	20%
Total	100%	100%	100%	100%

CURRICULUM CONTENT

PAPER 1: CORE GEOGRAPHY

PHYSICAL CORE

These units are compulsory and will be assessed in Sections A and B of Paper 1.

1. Hydrology and Fluvial Geomorphology

The global hydrological cycle as a closed system should have been studied as an introduction to this unit.

1.1 The drainage basin system

A study of the terminology and processes operating within drainage basins. Examples should be studied in a variety of climatic environments.

Inputs, outputs, stores and flows. These should include precipitation, evaporation, evapotranspiration, interception, throughfall, stemflow, infiltration, percolation, overland flow, throughflow, baseflow, water tables, groundwater, recharge.

1.2 Rainfall – discharge relationships within drainage basins

The concept of water balance, the components of the flood hydrograph, climatic influences on hydrographs to include precipitation type and intensity, temperature, evaporation, transpiration, evapotranspiration, antecedent moisture. The influence on hydrographs and stores and flows of drainage basin characteristics including size and shape, drainage density, porosity and permeability of soils, rock type, slopes, vegetation type, land use.

1.3 River channel processes and landforms

Channel processes of load transport (traction, saltation, suspension and solution), deposition and sedimentation (the Hjulstrom curve), erosion processes (abrasion, corrasion, solution, hydraulic action), velocity and discharge, patterns of flow (laminar, turbulent and helicoidal), channel types (straight, braided, meandering), channel landforms (riffle and pool sequences, gorges, waterfalls, bluffs, point bars, floodplains, unpaired terraces, levees, alluvial fans, deltas).

1.4 The human impact

Modifications to catchment flows and stores and to channel flows by land use changes (including urbanisation), abstraction and water storage, the causes and effects of floods and droughts, flood prediction, prevention and amelioration.

2. Atmosphere and Weather

2.1 Energy budgets

The six factor 'day model' (incoming solar radiation, reflected solar radiation, energy absorbed into the surface and subsurface, sensible heat transfer, long wave earth radiation, latent heat transfer – evaporation); the four factor 'night-model' (long wave earth radiation, latent heat transfer – dew, sensible heat transfer, absorbed energy returned to earth).

2.2 The Earth – atmosphere energy budget

The latitudinal pattern of radiation excesses and deficits and resultant atmospheric transfers; seasonal variations in pressure and wind belts; the influence of latitude land/sea distribution and ocean currents on the global distribution of temperature, pressure and wind.

2.3 Weather processes and phenomena

Atmospheric moisture (vapour, liquid, solid); the processes of changes to atmospheric moisture (evaporation, condensation, freezing, melting, deposition and sublimation); humidity and precipitation (radiation cooling, environmental and adiabatic lapse rates), stability and instability and conditional instability; resultant weather phenomena (clouds, rain, hail, snow, frost, dew, fog).

2.4 The human impact

The greenhouse effect and global warming (greenhouse gases and the energy budget, climatic and other impacts); urban effects on climate (temperature – heat island, humidity, precipitation, pollution, winds).

3. Rocks and Weathering

3.1 Elementary plate tectonics

Global patterns of plates, sea floor spreading, processes at divergent and convergent plate boundaries; mountain building, ocean ridges, ocean trenches, island arcs.

3.2 Weathering and rocks

Physical weathering processes (freeze thaw, heating/cooling, wetting/drying, exfoliation/spheroidal, crystal growth, pressure release); chemical weathering processes (hydrolysis, hydration, carbonation, solution, oxidation, organic action – humic acids and chelation).

Types of weathering and effectiveness in different climates (Peltier diagram), general factors influencing weathering (climate, rock type, structure, vegetation, relief); properties of granite and limestone, their chemical composition and physical nature in relationship to weathering and erosion.

3.3 Slopes, processes and development

The slope system and types of profile in relation to inputs and outputs; the factors controlling slope form and development (rock type and structure, climate soil, vegetation, gradient aspect) slope processes of mass movement, heaves, flows, slides and falls (conditions under which each occurs).

A detailed knowledge of theories of slope evolution are not required.

3.4 The human impact

The impact of human activities on rocks and weathering (quarrying, mining, pollution, acid rain, dumping material on Earth's surface, impact on slope processes and form).

PAPER 1: CORE GEOGRAPHY

HUMAN CORE

These units are compulsory and will be assessed in Sections A and C of Paper 1. Candidates should illustrate their answers, where appropriate, with reference to case studies drawn from LEDCs (Less Economically Developed Countries) and MEDCs (More Economically Developed Countries) since 1960. A historical perspective may form an instructive context for some of the topics but will not itself be examined.

1. Population Change

1.1 Natural increase as a component of population change

Natural increase rate; birth rate and death rate and the factors affecting levels of fertility and mortality. The interpretation of age/sex pyramids. Population structure (age, gender, dependency and dependency ratio). Demographic transition; a critical appreciation of the demographic transition model.

The link between population and development: development indices.

1.2 Migration as a component of population change

Internal and international migration (excluding all movements of less than one year's duration); reasons for migration, processes and patterns of migration and impacts on source and receiving areas, including population structures. Internal and international migrations should be studied

1.3 Population-resource relationships

Carrying capacity and change in carrying capacity over time. The roles of technology and innovation in resource development (eg food production); the role of constraints (eg war, climatic hazards) in relation to sustaining changing populations. A critical appreciation of the concept of overpopulation, optimum population and underpopulation.

1.4 The management of population change

A case study of one or more country's population policy, comprising the two components (natural increase and migration) illustrating the difficulties faced and evaluating the attempted solution(s). The case study or studies should encompass policies on controlling populations and managing the results of population change.

2. Settlement Dynamics

2.1 Relationships between settlements

The settlement hierarchy and factors affecting it; the primate city and urban dominance. Spheres of influence; relationships between different sizes of settlements, the concepts of range, threshold and orders of goods and services. (Note: whilst Christaller's work is foundational to an understanding of the relationships between settlements, Central Place Theory itself will not be examined).

2.2 Changes in rural settlements

Contemporary issues in rural settlement in LEDCs and MEDCs including the impacts of rural-urban and urban-rural migration and the consequences of urban growth. A case study of a rural settlement or a rural area illustrating some of the issues of its development and growth (or decline) and evaluating the responses.

2.3 Urban trends and issues of urbanisation

The process of urbanisation in LEDCs and MEDCs including counterurbanisation and re-urbanisation, competition for land, urban renewal, gentrification, changing accessibility and lifestyles. A case study illustrating the difficulties of and evaluating the attempted solutions in each of the following: shanty towns and/or squatter settlement in a LEDC; the provision of infrastructure for a city; the inner city in a MEDC; strategies for reducing urbanisation in LEDCs; controlling the spread of urban areas in MEDCs.

2.4 The changing structure of urban settlements

Factors affecting the location of activities within urban areas (including planning) and how urban locations change over time for retailing, services and manufacturing. Functional zonation and competition for space in urban areas and the concept of bid-rent. The changing Central Business District (CBD). Residential segregation and the process basis of residential zonation. (*Note: whilst the concepts underlying the classic urban land-use models are foundational, the actual models will not be examined*).

These units are compulsory and will be assessed in Sections A and C of Paper 1. Candidates will be expected to illustrate their answers with reference to case studies. Although there are only two units in the human geography core, compared to three in the physical geography core it is envisaged that equal teaching time should be spent on the human and physical sections. Each of the two human core topics is seen as being considerably larger in terms of content than each of the three physical geography topics in the core.

PAPER 2: ADVANCED PHYSICAL GEOGRAPHY OPTIONS

Candidates must study at least **two** of these physical options which will be assessed in Paper 2. Two questions will be set on each option topic in each examination session. Questions may require the use of case studies, so it is essential that real, rather than theoretical, examples are studied.

1. Tropical Environments

1.1 Tropical Climates

Characteristics of air masses, their migration, the ITCZ, winds, ocean currents, monsoons; resulting climatic characteristics and distribution of temperature and rainfall in the humid and seasonally humid tropics.

1.2 Tropical Ecosystems

Plant communities (development of climax and plagioclimax vegetation in tropics; vegetation structure of the tropical rainforest and savanna; the development of seres; soil forming processes, soil types and profile characteristics (oxisols/latosols, tropical red and brown earths); tropical soil catena (role of slopes in soil formation); soil fertility and nutrient cycling under rainforest and savanna (Gerschemel diagrams).

1.3 Tropical Landforms

Weathering processes under humid and sub-humid tropical conditions; the development of deep weathering profiles and the basal surface of weathering; the development of landforms in granite (tors, inselbergs, etchplains, pediplains); the development of landforms in limestone (karst and tower karst).

1.4 Sustainable management of tropical environments

A case study illustrating some of the problems of the sustainable management of areas within either the tropical rainforest ecosystem or within the savanna ecosystem and an evaluation of attempted solutions.

2. Coastal Environments

2.1 Wave and Marine Processes

Wave generation and characteristics, (fetch, energy, refraction); breaking waves, high and low energy breakers (constructive and destructive) swash, backwash; marine erosion (hydraulic action, wave quarrying, corrasion/abrasion, solution, attrition); wave transportation and deposition, (sediment sources and characteristics, sediment cells, longshore drift).

2.2 Coastal Landforms of Clifed and Constructive Coasts

Cliffs and wave cut platforms, cliff profiles (including caves, arches and stacks) and their evolution (related to rock type, structure, erosional history, sub aerial processes, mass movement); formation of depositional features (beaches in cross section and plan, simple and compound spits, tombolos, offshore bars, barrier beaches and islands, coastal dunes, tidal sedimentation in estuaries and coastal saltmarshes).

2.3 Coral Reefs

Characteristics and distribution of fringing reefs, barrier reefs and atolls; conditions required for coral growth and development; theories of atoll formation; causes and results of sea level change on coral reefs.

2.4 Sustainable management of coasts

A case study illustrating some of the problems of the sustainable management of a stretch or stretches of coastline and an evaluation of attempted solutions.

3. Hazardous Environments

3.1 Hazardous Environments resulting from Crustal (tectonic) Movement

Global distribution and the relationship of hazards to plate tectonics (convergent, divergent, conservative plate margins, hot spots); earthquakes and resultant hazards (shaking, landslides, tsunami); volcanic hazards; types of eruption and their products (nuées ardentes, lava flows, mudflows, pyroclastic and ash fallout); prediction and monitoring of hazard; perception of risk. Effects on lives and property.

3.2 Hazardous Environments resulting from Mass Movements

Nature and causes of mass movements on slopes leading to hazards that result from slope instability, level of impact; the nature and causes of avalanches and the hazards produced; prediction and monitoring of the hazard and the perception of risk. Effects on lives and property.

3.3 Hazard resulting from Atmospheric Disturbances

Distribution of areas most at risk from tropical storms and tornadoes; processes causing the development of tropical storms and tornadoes; related hazards (Coastal flooding, severe river floods, landslides, storm surges, high winds, pressure imbalances). Prediction, monitoring of hazards and perception of risk. Effects on lives and property.

3.4 Sustainable Management in Hazardous Environments

A case study illustrating some of the problems of sustainable management of a hazardous environment and an evaluation of attempted or possible solutions.

4. Arid and Semi-Arid Environments

4.1 The Distribution and Climatic Characteristics of Hot Arid and Semi-Arid Environments

Definitions and causes of aridity; effective precipitation, pressure and wind systems in deserts and influence of ocean currents; degrees of aridity, high wind energy environments, diurnal and seasonal variations in precipitation and temperature; past climatic change (Pleistocene pluvials and evidence for climatic change).

4.2 Processes producing Desert Landforms

Weathering processes (thermal fracture, exfoliation, chemical weathering); results of weathering on rocks (block and granular disintegration); processes of erosion, transport and deposition: by wind (corrasion/abrasion, deflation, saltation): by water (hydrological regime, episodic rainfall, flash floods, changing climate, sheet and stream floods); development of sand dune landscapes; development of wadis, alluvial fans, arroyos, pediments, piedmont zone (bahadas, playas, salt lakes, inselbergs).

4.3 Soils and Vegetation

Biomass productivity (biodiversity, limited nutrient cycling, fragility); adaptation of plants and animals to extreme temperatures, physical and physiological drought; characteristic soils (process of upward capillary movement of water and minerals).

4.4 Sustainable Management of Arid and Semi-Arid Environments

A case study illustrating the problems of sustainable management in either an arid or a semi-arid environment and an evaluation of attempted or possible solutions.

Candidates must study at least **two** of these physical options, which will be assessed in Paper 3. Candidates will be expected to illustrate their answers with reference to case studies.

PAPER 3: ADVANCED HUMAN GEOGRAPHY OPTIONS

Candidates must study at least **two** of these human options, which will be assessed in Paper 3. Two questions will be set on each option topic in each examination session. Candidates should illustrate their answers, where appropriate with reference to case studies from LEDCs (Less Economically Developed Countries) and MEDCs (More Economically Developed Countries) since 1960. A historical perspective may form an instructive context for some of the topics but will not be examined other than where specified.

1. Production, Location and Change

1.1 Agricultural systems and food production.

Factors (physical, social, economic, political) affecting agricultural land-use and practices; the roles of irrigation, land tenure, the nature of demand and distance from markets, agricultural technology. The concept of an agricultural system with inputs, throughputs, subsystems and output; one arable and one pastoral system. Intensive and extensive production and agricultural productivity. Issues in the intensification of agriculture and the extension of cultivation in LEDCs. (*Note: whilst the conceptual basis of Von Thünen's work may be helpful in understanding agricultural location, the theory itself will not be examined.*)

1.2 The management of agricultural change

A case study illustrating the need for, and some of the difficulties in the management of, agricultural change in one country, at the scale of the holding or producer and at the national scale, with an evaluation of the attempted solutions.

1.3 Manufacturing and related service industry

Factors affecting the location of manufacturing and related service industry (land, labour, capital, markets, materials, technology, economies and diseconomies of scale, inertia, transport, government policies). Industrial agglomeration; functional linkages; the industrial estate and the export processing zone (EPZ). The informal sector of manufacturing and services; causes, characteristics, location and impact. (*Note: whilst the conceptual basis of the theories of Weber and others is foundational to an understanding of industrial location, no theory or model will, in itself, be examined.*)

1.4 The management of industrial change

A case study of the industrial policy of one country and consequent changes in the character, location and organisation of its industrial production, illustrating some of the issues faced and evaluating the attempted solutions.

2. Environmental Management

2.1 Sustainable energy supplies

Renewable and non-renewable energy resources. Factors at the national scale affecting levels of demand for and supply of energy and the balance between different sources (including levels of development, resource endowment, capital, technology, pollution, energy policy). Trends in the consumption of fossil fuels, nuclear power and renewables (eg hydro-electric power, wind, solar power) in LEDCs and MEDCs. The environmental impact of energy production, transport and usage at local and global scales.

2.2 The management of energy supply

A case study of one country's energy strategy illustrating some of the issues of changes in demand and supply, in the production of electrical energy and its location, and evaluating the strategy's success.

2.3 Environmental degradation

Pollution; land, air and water. Factors in the degradation of contrasting rural environments eg poor agricultural practices, deforestation and mineral extraction. Factors in the degradation of urban environments (eg urbanisation, industrial development, inadequate infrastructure). Attempts at upgrading the quality of degraded rural and urban environments; the protection of environments at risk.

2.4 The management of a degraded environment

A case study of a degraded environment either rural or urban, illustrating the problems faced, issues in attempts to upgrade the environment, and evaluating the attempted solution(s).

3. Global Interdependence**3.1 Trade flows and trading patterns**

Import and export patterns in relation to the development of LEDCs and MEDCs. Global inequalities in trade flows. Visible and invisible imports and exports. Factors affecting trade flows and trading patterns globally (including resource endowment, locational advantage, historical factors such as colonial ties, trade agreements, changes in the global market and innovation).

3.2 The management of international trade

A case study of the international trading patterns (imports and exports) of one country since 1960, illustrating some of the issues in its involvement in international trade and evaluating the country's trading strategy.

3.3 The development of international tourism

Reasons for and trends in the growth of tourism; the impacts of tourism on the environments, societies and economies (local and national) of tourist destinations; carrying capacity; the multiplier effect. A critical appreciation of the life cycle model of tourism. Recent developments including eco-tourism. The role of tourism in national economic planning.

3.4 The management of a tourist destination

A case study of one tourist area or resort, its growth and development, illustrating the issues of sustainability it faces and evaluating tourism's impacts on local environment, society and economy.

4. Economic Transition**4.1 National development**

The nature of the primary, secondary, tertiary and quaternary sectors and their roles in economic development. The nature, causes (physical and human) and distribution of global inequalities in social and economic wellbeing; a critical appreciation of some of the indices of measurement of social and economic inequality. (Quaternary industry or quaternary sector covers activities such as research and development, information technology and high-technology industries, training and management consultancy. It is often subsumed into tertiary.)

4.2 The globalisation of industrial activity

An introduction to global patterns of resources, primary production, markets and the international spatial division of labour. The connections between industrial growth in some LEDCs and deindustrialisation in MEDCs. Factors affecting the growth and spatial structure of transnational corporations (TNCs); a case study of the global organisation and operation of one TNC.

4.3 Regional development

Regional disparities in social and economic development (within countries). The concept of core-periphery. The process of cumulative causation from initial advantage(s); spread and backwash effects. (Regional is taken here to mean within a country or internal to that country, **NOT** a region of the world.)

4.4 The management of development

A case study of one country's policy for social and economic development at **either** the national scale or the regional scale (between the different regions within that country), illustrating some of the difficulties faced and evaluating the attempted solutions.

Candidates must study at least **two** of these human options, which will be assessed in Paper 3. Candidates will be expected to illustrate their answers with reference to case studies.

GEOGRAPHICAL SKILLS

The information regarding skills in the sections on Aims and Assessment Objectives should be studied. The following information mainly concerns the use of source materials. However, it is also important that candidates develop skills in geographical enquiry, decision making and evaluation.

It is expected that candidates will be familiar with using a variety of source materials. It is not expected that a separate teaching unit concerned with geographical skills be developed by teachers, but rather that appropriate skills are integrated into the teaching of the AS and A level units. Case studies offer excellent opportunities for introducing candidates to a wide variety of stimulus material for interpretation and analysis. The following list of source materials is not exhaustive. It simply serves to illustrate the types of source materials that candidates should be confident of handling and which might be used in examination papers. Such source materials will largely be familiar to candidates who have studied Geography at IGCSE or O level, but the level of response expected will, of course, be different

Graphs	bar graphs, divided bar graphs, line graphs, scatter graphs (including line of best fit), pie charts, proportional circles, triangular graphs, climate graphs, etc.
Photographs	colour, black/white, aerial, terrestrial, satellite
Maps	survey maps (1:25 000 and 1:50 000 scales), flow line, isoline, choropleth, sketch, etc.
Diagrams	two and three dimensional, with/without annotation, flow diagrams, etc.
Written	text from a variety of sources (newspapers, articles, books, interviews, etc.)
Numeric	tables, charts, raw data, etc.
Cartoons	

Please note that survey maps will only be used in Paper 1. They will **not** occur in all examinations.

RESOURCE LIST

Recommended Textbooks

General Texts

Guinness P and Nagle G; Advanced Geography: Concepts and Cases Revised Edition (2002) Hodder & Stoughton Educational; ISBN: 0340858265

Nagle and Spencer (Eds); AS and A level Advanced Geography through Diagrams (2001); Oxford University Press; ISBN: 0199134324

Witherick M (Ed); Environment and People; An Integrated Course for A and AS Geography (1995) Nelson Thornes; ISBN: 0748721207

Prosser, Raw & Bishop; Landmark AS Geography 2000) Collins Educational; student book ISBN: 0003265595; teacher's resource book ISBN: 0003265609

Out of Print General Texts

Bayliss T; A Concise Advanced Geography; (1995) Oxford University Press; ISBN: 0199146608

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Other Sources

Numerous other sources exist which will be very suitable for teaching the AS and A level geography courses. Organisations such as Friends of the Earth, Greenpeace, Oxfam, etc. produce a range of materials. Various companies have produced a range of videos and CD Roms for us by advanced level students. The world wide web offers many opportunities to access information on geographical topics.

Journals

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