

GEOGRAPHY

HIGHER 2

(Syllabus 9730)

CONTENTS

	<i>Page</i>
INTRODUCTION	1
AIMS	1
KNOWLEDGE	1
SKILLS	2
VALUES	2
ASSESSMENT OBJECTIVES	3
ASSESSMENT SPECIFICATION GRID FOR H2 GEOGRAPHY	3
EXAMINATION FORMAT	4
TABLE OF GEOGRAPHICAL DATA AND TECHNIQUES	7
PAPER 1 SYLLABUS TOPICS	8
PAPER 2 SYLLABUS TOPICS	11
SYLLABUS	16
SUGGESTED BOOKLIST	49

INTRODUCTION

The H2 Geography syllabus is designed around 224 hours and comprises Physical Geography, Human Geography and geographical skills and techniques. The 3 Physical Geography topics are Lithospheric Processes, Hazards and Management; Atmospheric Processes, Hazards and Management and Hydrologic Processes, Hazards and Management. The 3 Human Geography topics are The Globalisation of Economic Activity; Population Issues and Challenges and Urban Issues and Challenges.

AIMS

The syllabus aims to enable candidates to:

1. Acquire knowledge of the characteristics and distribution of physical and human phenomena;
2. Develop an understanding of the processes affecting the physical and human environments;
3. Gain an understanding of the dynamic and changing outcomes resulting from physical-human interactions;
4. Develop skills in acquiring, communicating, applying and evaluating geographical knowledge;
5. Develop an informed concern about the quality of the environment and the future of the human habitat, and, thereby, enhance candidates' sense of responsibility for the care of the Earth and its people;
6. Develop awareness of contrasting opportunities and constraints which people face in local, regional and global environments; and
7. Develop an appreciation of the dynamic nature of geography over time and space.

KNOWLEDGE

The syllabus intends that candidates develop knowledge with regard to:

1. Geographical concepts, terms, facts, trends, theories and principles;
2. Potential and limitations of evidence, approaches, theories and concepts in geographical knowledge;
3. Components of physical and human environments;
4. Spatial patterns of physical and human phenomena;
5. Relationships and interactions between and within physical and human phenomena at local, regional and global scales; and
6. Spatial and temporal changes in physical and human environments.

SKILLS

The syllabus intends that candidates develop the skills to:

1. Identify and classify physical and human features of the environment;
2. Observe, collect, record and evaluate geographic information from both primary and secondary sources;
3. Extract relevant information from geographical data (numerical, diagrammatic, pictorial and graphical forms);
4. Interpret, recognise and analyse patterns in geographical data and deduce relationships;
5. Use and apply geographical concepts, terms, facts and theories learnt to new contexts and issues;
6. Synthesise and evaluate geographical data and knowledge;
7. Undertake independent learning; and
8. Organise, present and communicate information in a coherent manner.

VALUES

Through their geographical training, candidates should develop:

1. A sense of appreciation and responsibility for the quality of the environment and the desirability of sustainable development at local, regional and global scales;
2. Sensitivity towards the attitudes, values and beliefs of people in different human environments;
3. An ability to analyse, evaluate and make judgements on perspectives, values and attitudes in the use and management of resources;
4. Personal perspectives, values and attitudes in relation to geographical issues; and
5. An awareness of the vulnerabilities, constraints and challenges faced by the local, regional and global communities.

ASSESSMENT OBJECTIVES

Candidates should be able to:

AO1: Knowledge

- Demonstrate relevant factual knowledge – geographical facts, concepts, processes, interactions, principles, theories and trends

AO2: Critical Understanding and Constructing Explanations

- Select, organise and apply concepts, terms and facts learnt
- Make judgements, recommendations and decisions

AO3: Interpreting and Evaluating Geographical Data

- Comprehend and extract relevant information from geographical data (numerical, diagrammatic, pictorial and graphical forms)
- Use and apply geographical knowledge and understanding to interpret and evaluate geographical data
 - o recognise patterns in geographical data and deduce relationships
 - o analyse and evaluate evidence
 - o compare and contrast different views
 - o draw inferences from given information
 - o recognise values and detect bias
 - o draw conclusions based on a reasoned consideration of evidence and arguments

ASSESSMENT SPECIFICATION GRID FOR H2 GEOGRAPHY

Assessment Objective	Weighting
AO1 + AO2	60%
AO1 + AO3	40%

Note: AO1 forms part of the testing of AO2 and AO3

EXAMINATION FORMAT FOR H2 GEOGRAPHY

Paper 1 – Physical Geography (3 hours) (50%)	
Section A 1½ hours (25%)	Four structured questions based on stimulus materials (e.g. maps, tables, graphs, photographs). One question will be set on each topic. The fourth question will be a combination of one or more topics. Candidates must answer all four questions. This section carries 50 marks.
Section B 1½ hours (25%)	Three structured essay-type questions, one on each of the topics. Each question will have an either/or option and comprises no more than two parts. Candidates must answer two questions from this section. Each question carries 25 marks.

Paper 2 – Human Geography (3 hours) (50%)	
Section A 1½ hours (25%)	Four structured questions based on stimulus materials (e.g. maps, tables, graphs, photographs). One question will be set on each topic. The fourth question will be a combination of one or more topics. Candidates must answer all four questions. This section carries 50 marks.
Section B 1½ hours (25%)	Three structured essay-type questions, one on each of the topics. Each question will have an either/or option and comprises no more than two parts. Candidates must answer two questions from this section. Each question carries 25 marks.

Note:

Stimulus materials will be used for all questions in Section A. Stimulus materials will also be used in Section B where they facilitate the application of content to new contexts and issues. One sub-part question on fieldwork will be set each year and can be found in Section A of either Paper 1 or Paper 2. The question on fieldwork may be based on topographic and other maps, satellite imagery, photographic interpretation, cartographic and graphic construction, fieldwork methodology, interpretation of primary and secondary data and simple descriptive and analytical statistics. Geographical issues can be tested in any section.

In any component where candidates are required to answer in continuous prose, the marks awarded will take into account the quality of language used by the candidate. The quality of language includes:

- (i) clarity of expression,
- (ii) the structure and presentation of ideas,
- (iii) grammar, punctuation and spelling.

Paper 1: Physical Geography

<p><u>Section A</u> Data Response Questions</p> <p>Answer all four questions</p>	<p>Question 1 Lithospheric Processes, Hazards and Management</p> <p>Question 2 Atmospheric Processes, Hazards and Management</p> <p>Question 3 Hydrologic Processes, Hazards and Management</p> <p>Question 4 Combination of at least two topics</p>	<p>50 marks</p> <p>All questions will add to 50 marks</p> <p>A sub-question on fieldwork skills/ geographical techniques will be tested in either Paper 1 or Paper 2</p>
<p><u>Section B</u> Essay Questions</p> <p>Answer two out of three questions</p> <p>Each question has an either/or option</p>	<p>Q5Either/Q5Or Lithospheric Processes, Hazards and Management</p> <p>Q6Either/Q6Or Atmospheric Processes, Hazards and Management</p> <p>Q7Either/Q7Or Hydrologic Processes, Hazards and Management</p>	<p>50 marks</p> <p>Each essay question carries 25 marks</p> <p>Each question should contain no more than two parts (and no subdivision of parts)</p>

Paper 2: Human Geography

<p><u>Section A</u> Data Response Questions</p> <p>Answer all four questions</p>	<p>Question 1 The Globalisation of Economic Activity</p> <p>Question 2 Population Issues and Challenges</p> <p>Question 3 Urban Issues and Challenges</p> <p>Question 4 Combination of at least 2 topics</p>	<p>50 marks</p> <p>All questions will add to 50 marks</p> <p>A sub-question on fieldwork skills/ geographical techniques will be tested in either Paper 1 or Paper 2</p>
<p><u>Section B</u> Essay Questions</p> <p>Answer two out of three questions</p> <p>Each question has an either/or option</p>	<p>Q5Either/Q5Or The Globalisation of Economic Activity</p> <p>Q6Either/Q6Or Population Issues and Challenges</p> <p>Q7Either/Q7Or Urban Issues and Challenges</p>	<p>50 marks</p> <p>Each essay question carries 25 marks</p> <p>Each question should contain no more than two parts (and no subdivision of parts)</p>

Candidates should develop skills and techniques to interpret and evaluate geographical data.

Geographical Data and Techniques	
Maps	Isoline maps, Sketch maps, Topographic maps, Dot maps, Maps with proportional symbols (squares, circles or bars), Base maps, Choropleth maps, Flow-line maps
Symbols	Proportional squares Proportional circles Proportional bars
Photographs	Aerial photographs, Landscape photographs, Satellite images
Graphs	<u>Line Graphs</u> : Simple line graphs, Compound line graphs, Comparative line graphs, Divergent line graphs <u>Bar Graphs</u> : Simple bar graphs, Compound bar graphs, Comparative bar graphs, Divergent bar graphs <u>Others</u> : Scatter graphs, Triangular graphs, Lorenz curves, Circular graphs, Pie Charts, Histograms, Dispersion diagrams
Others	Texts, Diagrams, Tables
Statistical calculations to show patterns and changes	Percentages Ratios Mean, median, mode Frequencies Range (interquartile range, standard deviation, difference between maximum and minimum) Densities Ratios
Fieldwork techniques	Candidates should be familiar with fieldwork techniques appropriate to the content in the syllabus.

Sources of data: books, journals, reports, the media, maps at a range of scales, statistics, censuses, graphs, questionnaires, photographs, remotely sensed images, people, information held in Geographic Information Systems and other Information Technology databases.

SYLLABUS TOPICS

Paper 1: Physical Geography

Candidates are required to study **three** topics.

These three topics should be studied at a variety of scales from global to local, so as to provide the candidates with a broad overview and with some detailed exemplification. ***The processes, issues and management strategies should be illustrated with reference to relevant and contrasting examples from Less Developed Countries (LDCs) and Developed Countries (DCs) where applicable.***

It is frequently the case that the physical and human aspects of the subject are taught entirely separately. Such an approach is perfectly acceptable, but every opportunity should be taken to show the links between and within the physical and human parts of the syllabus.

Attention should be given to the interaction of factors (economic, social, political and environmental), the identification of characteristic processes and how they change over space and time.

It is essential that candidates study the topics in the context of actual places and that these are put into a global perspective. Wherever possible candidates should take examples from one particular region, rather than isolated examples from widely dispersed locations.

Examples given are only for guidance.

Lithospheric Processes, Hazards and Management

1. Plate Tectonics

- Plate Tectonic Theory
 - o Theory of and evidence for plate tectonics (e.g. palaeoclimatology, fossil records, sea-floor spreading, palaeomagnetism, structure of the earth, internal heating of the earth and convection currents in the mantle)
 - o Different types of plate boundaries: convergent, divergent and transform
 - o The global distribution, formation and characteristics of the following
 - Landforms: ocean ridges, fold mountains, deep sea trenches, island arcs, block mountains and rift valleys, volcanoes
 - Phenomena: hotspots and earthquakes
- Tectonic hazards and responses
 - o Volcanic hazards
 - Types of volcanic eruptions and their association with the different plate boundaries: basaltic, andesitic and rhyolitic
 - Effects of volcanic eruptions (e.g. earthquakes, tsunamis, torrential rain, landslides, destruction and damage of homes and infrastructure, destruction and loss of farmland, diseases, health and food crisis, lowering of global temperature, ozone depletion)
 - Management of volcanic hazards
 - ♦ Predicting volcanic eruptions (e.g. tilt meter, seismic monitoring, recurrence interval prediction)
 - ♦ Mitigating volcanic hazards (e.g. lava flow dams, control structures, evacuation measures, 'controlled' volcanic eruptions, hazard mapping)
 - ♦ Responses to the effects of volcanic hazards (e.g. shelter, food, basic hygiene amenities, medical care)
 - o Earthquake hazards
 - Main characteristics: focus, epicentre and the main types of seismic waves (P-waves, S-waves and L-waves)
 - Measurement of earthquake magnitude and intensity: Richter scale and Mercalli scale
 - Effects of earthquakes: tsunamis, landslides, destruction of public and private property, fires
 - Management of earthquake hazards
 - ♦ Predicting earthquakes (e.g. seismic monitoring, tilt meters, recurrence interval prediction)
 - ♦ Mitigating earthquake hazards (e.g. building designs, 'controlled' earthquakes, hazard mapping, evacuation measures)
 - ♦ Responses to the effects of earthquake hazards (e.g. shelter, food, basic hygiene amenities, medical care)

2. Weathering

- Igneous, sedimentary and metamorphic rock types and rock cycle
- Characteristics of rocks (e.g. granite, basalt, sandstone, limestone, shale, marble, quartzite): mineral composition and physical properties
- Physical, chemical and biological weathering processes
- Factors (natural and anthropogenic) affecting weathering processes and their effectiveness
- Weathering of granite and limestone and the resultant landforms

3. Mass Movement

- Mechanisms of mass movement
 - Shear strength
 - Shear stress
- Types of mass movement
 - Slide (e.g. rockslide)
 - Flow (e.g. mudflow)
 - Heave (e.g. soil creep)
- Factors (natural and anthropogenic) affecting mass movement
- Effects of mass movement
- Management of mass movement
 - Mitigating mass movement: reducing shear stress and increasing shear strength (e.g. reduce stripping of land, increase density of vegetation cover, controlled development, hazard mapping, retaining structure)
 - Responses to the effects of hazards of mass movement (e.g. shelter, food, basic hygiene amenities, medical care)

Atmospheric Processes, Hazards and Management

1. The Earth's Atmosphere and Atmospheric Processes

- The structure and composition of the atmosphere
- Earth's energy budget and radiation balance (including effects of ocean currents)
- Factors affecting insolation (e.g. latitude, aspect, cloud cover and albedo)
- Forces influencing air movement: pressure gradient force (PGF), Coriolis force, and friction
- Horizontal and vertical movements of heat energy related to global atmospheric circulation: tri-cellular model, inter-tropical convergence zone (ITCZ)
- Surface wind belts related to global atmospheric circulation and seasonal variations
- Tropical and equatorial weather systems, and types of resultant precipitation (orographic/relief and convectional rain)

2. Climatic Zones of Tropical Africa and Asia

- Climatic features and their variations within tropical Africa and Asia according to Köppen-Geiger's System of Climate Classification (including an awareness that the zones merge one into another and are not separated by sharp divides)
 - Tropical rainforest climate
 - Tropical monsoon climate
 - Tropical savanna climate
 - Hot low-latitude desert climate
- Climatic factors influencing the varied pattern of climatic zones of tropical Africa and Asia
 - Insolation and seasonal variations
 - Migration of pressure belts (e.g. ITCZ)
 - Winds (e.g. trade winds)
 - Topographic effects
 - Continental/maritime effects
 - Sub-tropical high-pressure belts
 - Variations in thermal capacity of continents and oceans

3. Adverse Weather Conditions

- Droughts
 - o Natural and anthropogenic causes (e.g. El Nino, global warming, shifting of rain belts)
 - o Effects of droughts in LDCs and DCs
 - o Management of droughts
 - Predicting droughts (e.g. weather records)
 - Mitigating droughts (e.g. permanent vegetation cover, population control, animal population control, transportation of water to drought affected areas by aqueducts)
 - Responses to the effects of the hazards of droughts (e.g. resettlement, food, basic hygiene amenities, medical care)
- Tropical cyclones
 - o Causes and characteristics of tropical cyclones
 - o Effects of severe tropical cyclones in LDCs and DCs
 - o Management of cyclonic hazards
 - Predicting tropical cyclones (e.g. weather records, satellite images and remote sensing)
 - Mitigating tropical cyclones (e.g. evacuation exercises and first aid strategies, cyclone early warning systems)
 - Responses to the effects of cyclonic hazards (e.g. shelters, food, basic hygiene amenities, medical care)

4. Climate Change and Responses

- Past climate change (brief overview) from the last glacial maximum 20 000 years ago to the present
- Human activities leading to climate change
 - o Microscale/local: Microclimate (urban climate)
 - Cause: urban environment
 - Effects on the microclimate (e.g. temperature, precipitation, humidity, wind and visibility)
 - o Macro-scale/global: Global warming/enhanced greenhouse effect
 - Causes: Greenhouse gas emissions, land use change, reduction of carbon sink
 - Effects of global warming (impact on hydrology, ecosystems, coastal zones and marine ecosystems, human settlements, energy and industries, human health)
 - Responses to global warming (e.g. transborder co-operation, carbon trading, debt for nature, reforestation, alternative sources of energy)

Hydrologic Processes, Hazards and Management

1. The Hydrologic Cycle

- The hydrologic cycle (global and basin scale): inputs, flows, storages, outputs and feedback pathways
 - o Inputs: precipitation type and intensity
 - o Flows: infiltration, overland flow (saturation overland flow and infiltration excess flow/ Hortonian overland flow), throughflow, percolation, base flow
 - o Storages: interception, soil moisture storage, channel storage, groundwater
 - o Outputs: evapo-transpiration, channel flow
- Factors influencing the hydrologic cycle at basin scale (e.g. climate, vegetation, soil conditions, geology, relief)

2. Channel Morphology and Processes in Drainage Basins

- Channel morphology (width, depth, slope, wetted perimeter, cross-sectional area, hydraulic radius)
- Factors affecting channel morphology
 - o Flow: laminar, turbulent
 - o Velocity
 - o Discharge
 - o Load: dissolved, suspended, bedload

- Channel processes
 - Fluvial erosion: attrition, abrasion/corrasion, hydraulic action, solution/corrosion
 - Fluvial transportation: solution, suspension, saltation, traction
 - Fluvial deposition
- Channel pattern: characteristics and formation
 - Meandering: flow patterns and related features (point bars, pools and riffles, slip-off slopes, river cliffs)
 - Braided (mid-channel bar, containing channel)
- Measurement of drainage density and stream order (Strahler)
- Measurement of channel velocity and discharge (bankfull and actual flow) and the effect of river regime
- Storm hydrograph
 - Components
 - Factors influencing the storm hydrograph (e.g. geology, relief, basin shape, soil characteristics, rainfall events, vegetation cover, land use)

3. River Floods

- Causes (natural and anthropogenic) of river flood
- Effects of river floods
- Management of river floods
 - Predicting river floods (e.g. flood recurrence interval, satellite images)
 - Mitigating river floods (e.g. channelisation and dams, flood shelters and warning, land use planning and zoning)
 - Responses to the effects of flood hazards (e.g. shelter, food, basic hygiene amenities, medical care)

4. Catchment Management

- Management of catchment areas
 - Issues of alteration to catchment characteristics (e.g. urbanisation, vegetation changes, abstraction from aquifers) and water quality
- Conflict of interests within and between upstream and downstream riparian states
 - Shared water resources, damming and diversion of water by upstream states, pollution
 - Responses to conflicts of interests within and between upstream and downstream riparian states
 - Political (e.g. treaties, hydro wars)
 - Economic (e.g. economic co-operation, economic dominance)
 - Environmental (e.g. joint efforts to protect the environment, changes to the freshwater ecology)

Paper 2: Human Geography

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Examples given are only for guidance.

The Globalisation of Economic Activity

1. Uneven Development in the Global Economy

- Globalisation
 - o Characteristics
 - o Processes (e.g. changing structure of firms and technological change)
 - o Impact on the world economy (e.g. 'shrinkage of distance', spatial division of the global economy, spatial interdependence, increased mobility and flexibility, and accentuation of regional disparities/convergence and divergence of economic activities)
- Uneven global distribution of economic activities
 - o Illustrate how globalisation has affected the economies of Less Developed Countries (LDCs), Developed Countries (DCs) and Newly Industrialising Economies (NIEs)
- New International Division of Labour
 - o Causes of the emergence of a new international division of labour (NIDL)
 - o Impact of the emergence of NIDL on the global economic activities
 - o Impact of new technologies on work
 - From job specialisation to flexible multi-skilled production
 - ♦ changes in production: production chain, specialisation, rationalisation, organisation and integration
 - ♦ changes in labour: deskilling, re-skilling
- Impact of Global Economic Change
 - o Rise in new service sectors: tertiary (services), quaternary (finance and insurance) and quinary (education, government, health research and development)
 - o Locational trends in producer and consumer services (e.g. decentralisation)
 - o Internationalisation of service firms
 - o Rise of small and medium sized enterprises (SMEs)
 - o De-regulation of public services (e.g. public utilities)

2. Transnational Corporations

- Characteristics of transnational corporations (TNCs)
- The spatial organisation of TNCs' activities including the spatial hierarchical distribution of headquarters, research and development centres and branch plants
- Linkages with the host economy
 - o Foreign direct investment and the influence on national and regional economies
- Case study of **one** TNC: spatial organisation, linkages and social, economic and environmental impact on the host economy (from **one** of the following industries: agribusiness, petrochemical industry, textiles, motor car or electronics)

3. Role of the State and the Supranational bodies

- Role of state in economic development and its impact on national economies (e.g. Export Processing Zones (EPZs), including industrial clusters and science/techno/business parks in Asia)
- Supranational bodies and their impact on national and regional economies
 - o Trading Blocs/Regional Blocs (e.g. EU, NAFTA, AFTA)
 - o International institutions (e.g. IMF, WTO)

Population Issues and Challenges

1. Population Dynamics

- Fertility
 - o Contemporary fertility differentials at global and national levels
 - o Proximate variables affecting fertility
 - Biological (e.g. years in marriage, patterns of sexual activity, length of breastfeeding, IVF, sterilisation, use of contraception, induced abortions)
 - Socio-economic (e.g. economic/social value of children, women's status in education and work)
 - Institutional (e.g. government policies and religion)
- Mortality
 - o Contemporary mortality differentials at global and national levels
 - o Factors affecting mortality
 - Demographic (e.g. age and gender)
 - Medical technology (e.g. advances in medical care)
 - Public Health measures (e.g. sanitation, vaccination)
 - Socio-economic changes (e.g. standard of living)
 - Political (e.g. genocide, wars)
 - Epidemics (e.g. Spanish 'flu) and pandemics (e.g. AIDS)
- Migration
 - o Concepts
 - Time: short and long term movements
 - Distance (national and transnational): origin and destination
 - Transnational movement: skilled and unskilled labour
 - o Issues in migration
 - Labour migration and impact
 - Identity and nationhood

2. Implications of Population Change

- Population Composition and Distribution
 - o Overview of world population growth and future projections in LDCs and DCs
 - Population distribution across space and inequalities in distribution
 - The need for and problems of population forecasting at national scale
 - Problems of population prediction
 - Future problems and opportunities resulting from population change and population policies in different parts of the world
 - o Interpretation of population pyramids
 - The interpretation of population pyramids, and their relationship to growth rates
 - Dependency and its implications
 - ♦ Coping with population growth (providing housing, work and services)
 - ♦ Coping with population loss (maintaining viable communities)
 - The value and limitations of population pyramids in prediction
 - o Socio-economic composition
 - Ethnic diversity
 - Concept of inequality between different populations and between different sectors of the same population
 - Indices used to measure the inequalities in populations
- Population Change and Planning
 - o Population growth in relation to Demographic Transition Theory
 - The demographic transition model and its usefulness
 - Consideration of the 5th stage
 - o Anti-natal and pro-natal policies
 - Role of governments in planning developments in the light of forecasts of population change (both in sheer numbers and also in the composition of national populations)
 - Population forecasting and government policies affecting population growth and their implications

- Population-resource Relationships
 - o Concepts of carrying capacity, optimum population, overpopulation and underpopulation
 - o Population-resource theories, their origins and value
 - Malthus
 - Meadows
 - I=PAT where 'I' stands for 'Impact', 'P' for 'Population', 'A' for 'Affluence' and 'T' for 'Technology' (after Ehrlich and Holdren)
 - o Development and resource use
 - Global variations in resource use
 - Changes in society (technological, economic and political) result in changing appraisals of resources and environments, their use and management
 - o Hedonist vs conservationist views of the population-resource relationship and their consequences
 - Relationship of population growth to environmental conditions and the changing resource base
 - Contrasting assessment of population-resource relationships
 - Sustainable development

Urban Issues and Challenges

1. Urbanisation

- Overview of Urbanisation
 - o Concept of urbanisation and its relationship to urban growth
 - o Sub-urbanisation, counter-urbanisation and re-urbanisation in the developed world
 - o Urbanisation trends in LDCs and DCs
- Characteristics and functions
 - o World/Global cities
 - o Primate cities

2. Urban Dynamics

- Competition for space (Bid Rent Theory)
 - o Bid Rent Theory and the competition for space may be studied in the context of urban zoning of economic activity and residential development
 - o Functional zoning: the changing nature of the central city and industrial location within urban settlements (manufacturing and services)
- Influences on Urban Structure
 - o Historical forces (e.g. colonial cities)
 - o State planning (e.g. planned cities)
 - o Decentralisation (e.g. commuting, telecommuting and the rise of suburban office)
 - o Global economy (e.g. multimedia corridor, mega developments, megalopolis)
 - o The future form of cities and their surroundings
- The Central City
 - o Functions of the central city (including CBD), inner and outer areas and changes over time
 - o Centrifugal and centripetal forces in the central city
 - o Renewal and gentrification
 - Strategies for re-imaging cities (e.g. cultural quarters, 24-hour cities, heritage tourism, flagship projects)

3. Managing Urban Environments

- Housing problems in LDCs and DCs
 - o Issues of homelessness and substandard housing for the urban poor and the resulting impacts (e.g. environmental impact)
 - o Management of housing problems (e.g. new towns, relocation housing, self-help housing, site-and-service schemes)

- Transport problems
 - o Transport problems in urban areas and the resulting impacts (e.g. environmental impact)
 - o Management of transport problems (e.g. restricting private car ownership, increasing road tax, road pricing, improvement of public transport, carbon tax)
- Socio-economic polarisation
 - o Factors causing socio-economic polarisation (e.g. migration, education, employment, age)
 - o Issues of crime, access to services for the urban poor, social segregation (e.g. enclaves, ghettos), economic deprivation

SYLLABUS

Paper 1 Physical Geography	Remarks
<p>Topic 1: Lithospheric Processes, Hazards and Management</p> <ol style="list-style-type: none"> 1. Plate Tectonics 2. Weathering 3. Mass Movement 	<p>Candidates are required to study three topics.</p> <p>These three topics should be studied at a variety of scales from global to local, so as to provide candidates with a broad overview and with some detailed exemplification. <i>The processes, issues and management strategies should be illustrated with reference to relevant and contrasting examples from Less Developed Countries (LDCs) and Developed Countries (DCs) where applicable.</i></p> <p>It is frequently the case that the physical and human aspects of the subject are taught entirely separately. Such an approach is perfectly acceptable, but every opportunity should be taken to show the links between and within the physical and human parts of the syllabus.</p> <p>Attention should be given to the interaction of factors (economic, social, political and environmental), to the identification of characteristic processes and to how they change over space and time.</p> <p>It is essential that candidates study the topics in the context of actual places and that these are put into a global perspective. Wherever possible candidates should take examples from one particular region, rather than isolated examples from widely dispersed locations.</p> <p>Examples given are <u>only</u> for guidance.</p>
<p>Topic 2: Atmospheric Processes, Hazards and Management</p> <ol style="list-style-type: none"> 1. The Earth's Atmosphere and Atmospheric Processes 2. Climatic Zones of Tropical Africa and Asia 3. Adverse Weather Conditions 4. Climate Change and Responses 	
<p>Topic 3: Hydrologic Processes, Hazards and Management</p> <ol style="list-style-type: none"> 1. The Hydrologic Cycle 2. Channel Morphology and Processes in Drainage Basins 3. River Floods 4. Catchment Management 	

Topic: Lithospheric Processes, Hazards and Management

Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>1. Plate Tectonics</p> <ul style="list-style-type: none"> • Plate Tectonic Theory <ul style="list-style-type: none"> o Theory of and evidence for plate tectonics (e.g. palaeoclimatology, fossil records, sea-floor spreading, palaeomagnetism, structure of the earth, internal heating of the earth and convection currents in the mantle) o Different types of plate boundaries: convergent, divergent and transform o The global distribution, formation and characteristics of the following <ul style="list-style-type: none"> – Landforms: ocean ridges, fold mountains, deep sea trenches, island arcs, block mountains and rift valleys, volcanoes – Phenomena: hotspots and earthquakes • Tectonic hazards and responses <ul style="list-style-type: none"> o Volcanic Hazards <ul style="list-style-type: none"> – Types of volcanic eruptions and their association with the different plate boundaries: basaltic, andesitic and rhyolitic 	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Explain the theory of plate tectonics • Discuss the different types of plate boundaries • Account for the global distribution, formation and characteristics of landforms and phenomena associated with tectonic activity • Differentiate the types of volcanic eruptions associated with the different plate boundaries 	<ul style="list-style-type: none"> • Plate tectonics • Convergent boundary • Divergent boundary • Transform boundary • Ocean ridge • Fold mountain • Deep sea trench • Island arc • Block mountain and rift valley • Volcano • Hotspot • Earthquake • Basaltic • Andesitic • Rhyolitic 	<ul style="list-style-type: none"> • Adaptability • Preparedness for any eventuality • Resourcefulness • Risk-taking • Survival

Topic: Lithospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> – Effects of volcanic eruptions (e.g. earthquakes, tsunamis, torrential rain, landslides, destruction and damage of homes and infrastructure, destruction and loss of farmland, diseases, health and food crisis, lowering of global temperature, ozone depletion) – Management of volcanic hazards <ul style="list-style-type: none"> ♦ Predicting volcanic eruptions (e.g. tilt meter, seismic monitoring, recurrence interval prediction) ♦ Mitigating volcanic hazards (e.g. lava flow dams, control structures, evacuation measures, 'controlled' volcanic eruptions, hazard mapping) ♦ Responses to the effects of volcanic hazards (e.g. shelter, food, basic hygiene amenities, medical care) o Earthquake Hazards <ul style="list-style-type: none"> – Main characteristics: focus, epicentre and the main types of seismic waves (P-waves, S-waves and L-waves) – Measurement of earthquake magnitude and intensity: Richter scale and Mercalli scale – Effects of earthquakes: tsunamis, landslides, destruction of public and private property, fires 	<ul style="list-style-type: none"> • Discuss the effects of volcanic eruptions • Assess the strategies used to predict, mitigate and respond to the effects of volcanic eruptions • Describe the characteristics of earthquakes • Distinguish between magnitude and intensity of earthquakes • Discuss the effects of earthquakes 	<ul style="list-style-type: none"> • Lava • Pyroclastic material • Lahar • Tsunami • Torrential rain • Landslide • Ozone depletion • Focus • Epicentre • Seismic wave • Richter scale • Mercalli scale 	

Topic: Lithospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> – Management of earthquake hazards <ul style="list-style-type: none"> ♦ Predicting earthquakes (e.g. seismic monitoring, tilt meters, recurrence interval prediction) ♦ Mitigating earthquake hazards (e.g. building designs, 'controlled' earthquakes, hazard mapping, evacuation measures) ♦ Responses to the effects of earthquake hazards (e.g. shelter, food, basic hygiene amenities, medical care) <p>2. Weathering</p> <ul style="list-style-type: none"> • Igneous, sedimentary and metamorphic rock types and rock cycle • Characteristics of rocks (e.g. granite, basalt, sandstone, limestone, shale, marble, quartzite): mineral composition and physical properties • Physical, chemical and biological weathering processes 	<ul style="list-style-type: none"> • Assess the strategies used to predict, mitigate and respond to the effects of earthquakes • Discuss the characteristics and formation of the three major rock types • Compare the characteristics of different rock types • Discuss physical, chemical and biological weathering processes 	<ul style="list-style-type: none"> • Igneous rock • Sedimentary rock • Metamorphic rock • Rock cycle • Weathering • Physical weathering • Chemical weathering • Biological weathering • Carbonation • Oxidation • Hydration • Hydrolysis • Frost shattering 	

Topic: Lithospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> • Factors (natural and anthropogenic) affecting weathering processes and their effectiveness • Weathering of granite and limestone and the resultant landforms <p>3. Mass Movement</p> <ul style="list-style-type: none"> • Mechanisms of mass movement <ul style="list-style-type: none"> o Shear strength o Shear stress 	<ul style="list-style-type: none"> • Discuss the effectiveness of different weathering processes in different climates • Compare the effectiveness of factors affecting weathering processes • Discuss the weathering of granite and limestone and their resultant landforms • Explain the relationship through which weathering and the removal of weathered materials produce landforms • Discuss the mechanisms of mass movement 	<ul style="list-style-type: none"> • Freeze-thaw • Thermal fracture • Solution • Chelation • Salt crystallisation • Peltier's model • Strakhov's model • Weathering profile • Block disintegration • Granular disintegration • Tor • Tafoni • Boulder field • Limestone pavement • Tower karst • Cockpit karst • Inselberg • Sub-surface limestone features • Mass movement • Geologic structure • Rock type • Shear strength • Shear stress 	

Topic: Lithospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> • Types of mass movement <ul style="list-style-type: none"> ○ Slide (e.g. rockslide) ○ Flow (e.g. mudflow) ○ Heave (e.g. soil creep) • Factors (natural and anthropogenic) affecting mass movement • Effects of mass movement • Management of mass movement <ul style="list-style-type: none"> ○ Mitigating mass movement: reducing shear stress and increasing shear strength (e.g. reduce stripping of land, increase density of vegetation cover, controlled development, hazard mapping, retaining structure) ○ Responses to the effects of hazards of mass movement (e.g. shelter, food, basic hygiene amenities, medical care) 	<ul style="list-style-type: none"> • Compare the intensity of different types of mass movement • Discuss the factors affecting mass movement • Discuss the effects of mass movement • Assess the strategies used to mitigate and respond to the effects of mass movement 	<ul style="list-style-type: none"> • Slide • Flow • Heave 	
<p>Fieldwork/Techniques</p> <ul style="list-style-type: none"> • Study the rocks in a local area to determine the rock type, its mineral composition and formation and the weathering processes affecting it • Landslides and earthquake hazards mapping • Examine the rate of soil creep on a slope (e.g. at the base of a lamp-post, on a bare slope) 			

Topic: Atmospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>1. The Earth's Atmosphere and Atmospheric Processes</p> <ul style="list-style-type: none"> The structure and composition of the atmosphere Earth's energy budget and radiation balance (including effects of ocean currents) Factors affecting insolation (e.g. latitude, aspect, cloud cover and albedo) 	<p>Students will be able to:</p> <ul style="list-style-type: none"> Describe the structure and composition of the atmosphere Explain the earth's energy budget and radiation balance Discuss the factors affecting insolation 	<ul style="list-style-type: none"> Troposphere Stratosphere Mesosphere Thermosphere Vertical structure of the atmosphere Atmospheric gas Insolation/short wave radiation Terrestrial/long wave radiation Net radiation Counter-radiation Sensible heat transfer Latent heat transfer Scattering Absorption Reflection Albedo Greenhouse effect Poleward heat transfer Heat budget 	<ul style="list-style-type: none"> Adaptability Preparedness for any eventuality Resourcefulness Risk-taking Survival

Topic: Atmospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> Forces influencing air movement: pressure gradient force (PGF), Coriolis force, and friction 	<ul style="list-style-type: none"> Account for the forces influencing air movement 	<ul style="list-style-type: none"> Friction Coriolis force Pressure gradient force (PGF) Centripetal force Centrifugal force Geostrophic wind 	
<ul style="list-style-type: none"> Horizontal and vertical movements of heat energy related to global atmospheric circulation: tri-cellular model, inter-tropical convergence zone (ITCZ) 	<ul style="list-style-type: none"> Explain the horizontal and vertical movements of heat energy within the atmosphere 	<ul style="list-style-type: none"> Horizontal heat transfer Vertical heat transfer Global atmospheric circulation Tri-cellular model Inter-tropical convergence zone (ITCZ) 	
<ul style="list-style-type: none"> Surface wind belts related to global atmospheric circulation and seasonal variations 	<ul style="list-style-type: none"> Explain the types of surface wind belts related to the global atmospheric circulation system 	<ul style="list-style-type: none"> Surface wind belts Prevailing wind Trade wind Monsoon wind Jet stream Mid-latitude surface westerlies Polar easterlies 	
<ul style="list-style-type: none"> Tropical and equatorial weather systems, and types of resultant precipitation (orographic/relief and convectional rain) 	<ul style="list-style-type: none"> Discuss the formation of precipitation in the tropical and equatorial region 	<ul style="list-style-type: none"> Lapse rates Atmospheric stability Condensation processes Orographic/relief rain Convectional rain 	

Topic: Atmospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>2. Climatic Zones of Tropical Africa and Asia</p> <ul style="list-style-type: none"> • Climatic features and their variations within tropical Africa and Asia according to Köppen-Geiger's System of Climate Classification (including an awareness that the zones merge one into another and are not separated by sharp divides) <ul style="list-style-type: none"> o Tropical rainforest climate o Tropical monsoon climate o Tropical savanna climate o Hot low-latitude desert climate • Climatic factors influencing the varied pattern of climatic zones of tropical Africa and Asia <ul style="list-style-type: none"> o Insolation and seasonal variations o Migration of pressure belts (e.g. ITCZ) o Winds (e.g. trade winds) o Topographic effects o Continental/maritime effects o Sub-tropical high-pressure belts o Variations in thermal capacity of continents and oceans <p>3. Adverse Weather Conditions</p> <ul style="list-style-type: none"> • Droughts <ul style="list-style-type: none"> o Natural and anthropogenic causes (e.g. El Nino, global warming, shifting of rain belts) o Effects of droughts in LDCs and DCs 	<ul style="list-style-type: none"> • Compare the features of the various climatic zones within tropical Africa and Asia • Discuss the climatic factors that influence the various climatic zones in tropical Africa and Asia • Discuss the causes of droughts • Compare the effects of droughts in LDCs and DCs 	<ul style="list-style-type: none"> • Climatic zone • Pressure belt • Wind • Thermal capacity • Ocean currents • Drought • Human-induced drought • Desertification 	

Topic: Atmospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> o Management of droughts <ul style="list-style-type: none"> – Predicting droughts (e.g. weather records) – Mitigating droughts (e.g. permanent vegetation cover, population control, animal population control, transportation of water to drought affected areas by aqueducts) – Responses to the effects of the hazards of droughts (e.g. resettlement, food, basic hygiene amenities, medical care) • Tropical cyclones <ul style="list-style-type: none"> o Causes and characteristics of tropical cyclones o Effects of severe tropical cyclones in LDCs and DCs o Management of cyclonic hazards <ul style="list-style-type: none"> – Predicting tropical cyclones (e.g. weather records, satellite images and remote sensing) – Mitigating tropical cyclones (e.g. evacuation exercises and first aid strategies, cyclone early warning systems) – Responses to the effects of cyclonic hazards (e.g. shelters, food, basic hygiene amenities, medical care) 	<ul style="list-style-type: none"> • Assess the strategies used to predict, mitigate and respond to the effects of droughts • Explain the causes of tropical cyclones • Compare the effects of tropical cyclones in LDCs and DCs • Assess the strategies used to predict, mitigate and respond to the effects of tropical cyclones 	<ul style="list-style-type: none"> • Tropical cyclone • Simpson-Saffir scale • Cyclonic air flow • Anti-cyclonic air flow 	

Topic: Atmospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>4. Climate Change and Responses</p> <ul style="list-style-type: none"> • Past climate change (brief overview) from the last glacial maximum 20 000 years ago to the present • Human activities leading to climate change <ul style="list-style-type: none"> o Microscale/local: Microclimate (urban climate) <ul style="list-style-type: none"> – Cause: urban environment – Effects on the microclimate (e.g. temperature, precipitation, humidity, wind and visibility) o Macro-scale/global: Global warming/enhanced greenhouse effect <ul style="list-style-type: none"> – Causes: Greenhouse gas emissions, land use change, reduction of carbon sink – Effects of global warming (impact on hydrology, ecosystems, coastal zones and marine ecosystems, human settlements, energy and industries, human health) – Responses to global warming (e.g. transborder co-operation, carbon trading, debt for nature, reforestation, alternative sources of energy) 	<ul style="list-style-type: none"> • Discuss how the urban environment has led to micro scale or local variations in climate • Assess the effects of urban environments on the microclimate • Discuss how human activities have led to macro-scale/global variations in climate • Discuss the causes and effects of global warming/enhanced greenhouse effect • Assess the responses to global warming/enhanced greenhouse effect 	<ul style="list-style-type: none"> • Microclimate • Urban climate • Urban heat island • Global warming • Enhanced greenhouse effect • Greenhouse gas emission • Land-use change • Carbon sink 	

Topic: Atmospheric Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>Fieldwork/Techniques</p> <ul style="list-style-type: none"> • Micro-climate studies (e.g. forested, urban) • Study of the reliability of weather forecasts • Track a storm • Day to day weather recording (practical work) to emphasise short-term day-to-day atmospheric variations • Use of climatic averages and interpretation of climatic data to illustrate the relationship between weather and climate • Use of newspaper and TV weather forecasts to look at climatic variations of a particular locality over space and time 			

Topic: Hydrologic Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>1. The Hydrologic Cycle</p> <ul style="list-style-type: none"> • The hydrologic cycle (global and basin scale): inputs, flows, storages, outputs and feedback pathways <ul style="list-style-type: none"> o Inputs: precipitation type and intensity o Flows: infiltration, overland flow (saturation overland flow and infiltration excess flow/Hortonian overland flow), throughflow, percolation, base flow o Storages: interception, soil moisture storage, channel storage, groundwater o Outputs: evapo-transpiration, channel flow • Factors influencing the hydrologic cycle at basin scale (e.g. climate, vegetation, soil conditions, geology, relief) 	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Describe the global hydrologic cycle • Describe the basin hydrologic cycle • Explain and differentiate the function of each pathway of the hydrologic cycle • Discuss the factors that influence the hydrologic cycle at the basin scale 	<ul style="list-style-type: none"> • Hydrologic cycle • Drainage basin • Precipitation • Infiltration • Overland flow • Saturation overland flow (SOF) • Infiltration excess flow (IEF)/Hortonian overland flow (HOF) • Throughflow • Percolation • Base flow • Interception • Soil moisture storage • Channel storage • Groundwater • Evapo-transpiration • Channel flow 	<ul style="list-style-type: none"> • Adaptability • Preparedness for any eventuality • Resourcefulness • Risk-taking • Survival

Topic: Hydrologic Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>2. Channel Morphology and Processes in Drainage Basins</p> <ul style="list-style-type: none"> • Channel morphology (width, depth, slope, wetted perimeter, cross-sectional area, hydraulic radius) • Factors affecting channel morphology <ul style="list-style-type: none"> ○ Flow: laminar, turbulent ○ Velocity ○ Discharge ○ Load: dissolved, suspended, bedload • Channel processes <ul style="list-style-type: none"> ○ Fluvial erosion: attrition, abrasion/corrasion, hydraulic action, solution/corrosion ○ Fluvial transportation: solution, suspension, saltation, traction ○ Fluvial deposition 	<ul style="list-style-type: none"> • Explain the various types of channel form • Explain the various channel processes 	<ul style="list-style-type: none"> • Channel • Channel width • Channel depth • Channel slope • Wetted perimeter • Channel cross-section • Hydraulic radius • Channel roughness • Channel velocity • Channel load • Channel competence • Laminar flow • Turbulent flow • Channel discharge • Fluvial erosion • Attrition • Abrasion/corrasion • Hydraulic action • Solution/corrosion • Fluvial transportation • Solution • Suspension • Saltation • Traction • Fluvial deposition • Hjulstrom curve • Critical erosion velocity 	

Topic: Hydrologic Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> • Channel pattern: characteristics and formation <ul style="list-style-type: none"> o Meandering: flow patterns and related features (point bars, pools and riffles, slip-off slopes, river cliffs) o Braided (mid-channel bar, containing channel) • Measurement of drainage density and stream order (Strahler) • Measurement of channel velocity and discharge (bankfull and actual flow) and the effect of river regime • Storm hydrograph <ul style="list-style-type: none"> o Components o Factors influencing the storm hydrograph (e.g. geology, relief, basin shape, soil characteristics, rainfall events, vegetation cover, land use) 	<ul style="list-style-type: none"> • Explain the meandering and braided channel patterns • Discuss the characteristics and formation of braided and meandering channels in relation to their efficiency under different conditions • Explain how the characteristics of the drainage basin affect the drainage efficiency • Explain how channel velocity and discharge are measured and how these are affected by the river regime • Explain the components of the storm hydrograph • Discuss the characteristics of and the factors influencing the storm hydrograph 	<ul style="list-style-type: none"> • Channel pattern • Meandering channel • Braided channel • Helicoidal flow • Sinuosity index • Point bar • Pool and riffle • Slip-off slope • River cliff • Mid-channel bar • Containing channel • Drainage density • Strahler's stream order • Bifurcation ratio • Storm hydrograph • Peak discharge • Bankfull discharge • Rising limb • Falling limb • Lag time • Storm flow • Baseflow 	

Topic: Hydrologic Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>3. River Floods</p> <ul style="list-style-type: none"> • Causes (natural and anthropogenic) of river flood • Effects of river floods • Management of river floods <ul style="list-style-type: none"> ○ Predicting river floods (e.g. flood recurrence interval, satellite images) ○ Mitigating river floods (e.g. channelisation and dams, flood shelters and warning, land use planning and zoning) ○ Responses to the effects of flood hazards (e.g. shelter, food, basic hygiene amenities, medical care) <p>4. Catchment Management</p> <ul style="list-style-type: none"> • Management of catchment areas <ul style="list-style-type: none"> ○ Issues of alteration to catchment characteristics (e.g. urbanisation, vegetation changes, extraction from aquifers) and water quality • Conflict of interests within and between upstream and downstream riparian states <ul style="list-style-type: none"> ○ Shared water resources, damming and diversion of water by upstream states, pollution 	<ul style="list-style-type: none"> • Discuss the factors that cause river floods • Analyse the impact of river floods • Assess the strategies used to predict, mitigate and respond to hazards caused by river floods • Discuss the issues related to the management of catchment areas within and between states • Discuss the issues related to transborder river basins 	<ul style="list-style-type: none"> • River flood • Flood frequency • Flood magnitude • Recurrence interval • Transborder river basin 	

Topic: Hydrologic Processes, Hazards and Management			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> o Responses to conflicts of interests within and between upstream and downstream riparian states <ul style="list-style-type: none"> – Political (e.g. treaties, hydro wars) – Economic (e.g. economic co-operation, economic dominance) – Environmental (e.g. joint efforts to protect the environment, changes to the freshwater ecology) 	<ul style="list-style-type: none"> • Evaluate the strategies used to resolve the conflict of interests within and between upstream and downstream riparian states in the management of transborder river basins 		
Fieldwork/Techniques <ul style="list-style-type: none"> • Study of infiltration rates in a local area • Impact of precipitation on discharge of a nearby monsoon drain or stream • Fieldwork and secondary research including aerial and ground photographs to look at contrasting changing river channels • Using secondary data to examine issues like river pollution or flooding risk • Using an OS map, calculate the drainage density of a river 			

Paper 2 Human Geography	Remarks
<p>Topic 1: The Globalisation of Economic Activity</p> <ol style="list-style-type: none"> 1. Uneven Development in the Global Economy 2. Transnational Corporations 3. Role of the State and the Supranational Bodies 	<p>Candidates are required to study three topics.</p> <p>These three topics should be studied at a variety of scales from global to local, so as to provide candidates with a broad overview and with some detailed exemplification. <i>The processes, issues and management strategies should be illustrated with reference to relevant and contrasting examples from Less Developed Countries (LDCs) and Developed Countries (DCs) where applicable.</i></p> <p>It is frequently the case that the physical and human aspects of the subject are taught entirely separately. Such an approach is perfectly acceptable, but every opportunity should be taken to show the links between and within the physical and human parts of the syllabus.</p> <p>Attention should be given to the interaction of factors (economic, social, political and environmental), to the identification of characteristic processes and to how they change over space and time.</p> <p>It is essential that candidates study the topics in the context of actual places and that these are put into a global perspective. Wherever possible candidates should take examples from one particular region, rather than isolated examples from widely dispersed locations.</p> <p>Examples given are <u>only</u> for guidance.</p>
<p>Topic 2: Population Issues and Challenges</p> <ol style="list-style-type: none"> 1. Population Dynamics 2. Implications of Population Change 	
<p>Topic 3: Urban Issues and Challenges</p> <ol style="list-style-type: none"> 1. Urbanisation 2. Urban Dynamics 3. Managing Urban Environments 	

Topic: Globalisation of Economic Activity			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>1. Uneven Development in the Global Economy</p> <ul style="list-style-type: none"> • Globalisation <ul style="list-style-type: none"> ○ Characteristics ○ Processes (e.g. changing structure of firms and technological change) ○ Impact on the world economy (e.g. 'shrinkage of distance', spatial division of the global economy, spatial interdependence, increased mobility and flexibility, and accentuation of regional disparities/convergence and divergence of economic activities) • Uneven global distribution of economic activities <ul style="list-style-type: none"> ○ Illustrate how globalisation has affected the economies of Less Developed Countries (LDCs), Developed Countries (DCs) and Newly Industrialising Economies (NIEs) • New International Division of Labour <ul style="list-style-type: none"> ○ Causes of the emergence of a new international division of labour (NIDL) ○ Impact of the emergence of NIDL on global economic activities 	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Discuss the characteristics and processes of globalisation • Discuss the impact of globalisation on the world economy • Discuss what is meant by 'the globalisation of economic activity' • Discuss the global, regional and national variations in economic wealth • Discuss the development gap • Evaluate the usefulness of various indicators used to measure the level of development • Discuss the causes and impact of the emergence of the new international division of labour on global economic activities 	<ul style="list-style-type: none"> • Uneven development • Globalisation • 'Shrinking world' • Technological change • Communications technology • Information technology • Global shift • Development gap • Less Developed Country (LDC) • Developed Country (DC) • Newly Industrialised Economy (NIE) • Development indicator • Human Development Index (HDI) • New International Division of Labour (NIDL) • Comparative advantage • Internationalisation and specialisation of economic activities 	<ul style="list-style-type: none"> • Competitiveness • Discipline • Enterprise • Good governance • Preparedness for the future • Resilience • Resourcefulness

Topic: Globalisation of Economic Activity			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> o Impact of new technologies on work <ul style="list-style-type: none"> – From job specialisation to flexible multi-skilled production <ul style="list-style-type: none"> ◆ changes in production: production chain, specialisation, rationalisation, organisation and integration ◆ changes in labour: de-skilling, re-skilling • Impact of Global Economic Change <ul style="list-style-type: none"> o Rise in new service sectors: tertiary (services), quaternary (finance and insurance) and quinary (education, government, health research and development) o Locational trends in producer and consumer services (e.g. decentralisation) o Internationalisation of service firms o Rise of small and medium sized enterprises (SMEs) o De-regulation of public services (e.g. public utilities) <p>2. Transnational Corporations</p> <ul style="list-style-type: none"> • Characteristics of transnational corporations (TNCs) 	<ul style="list-style-type: none"> • Analyse the impact of the new technologies on work • Discuss the impact of global economic change on the service sector • Discuss the growth and locational shifts in various economic activities • Discuss the characteristics of TNCs 	<ul style="list-style-type: none"> • Job specialisation • Flexible production • Multi-skilled production • Production chain • Specialisation • Rationalisation • Organisation and integration • De-skilling • De-industrialisation • Re-skilling • Re-industrialisation • Tertiary sector • Quaternary sector • Quinary sector • Decentralisation • Developing hub status • Research and development industry • Small-medium enterprise • Industrial location • Transnational corporations (TNCs) 	

Topic: Globalisation of Economic Activity			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> The spatial organisation of TNCs' activities including the spatial hierarchical distribution of headquarters, research and development centres and branch plants Linkages with the host economy <ul style="list-style-type: none"> Foreign direct investment and the influence on national and regional economies Case study of one TNC: spatial organisation, linkages and social, economic and environmental impact on the host economy (from one of the following industries: agribusiness, petrochemical industry, textiles, motor car or electronics) <p>3. Role of the State and the Supranational Bodies</p> <ul style="list-style-type: none"> Role of state in economic development and its impact on national economies (e.g. Export Processing Zones (EPZs), including Industrial Clusters and Science/Techno/Business parks in Asia) 	<ul style="list-style-type: none"> Discuss the spatial organisation and structure of TNCs Discuss the command and control relationship between TNCs and the host economy Analyse the social and economic impact of TNCs on the economies in which they operate Discuss the role of governments in attracting investments Discuss the spatial organisation, linkages with and the social and economic impact of TNCs on a specific host economy Examine the role of the state in economic development Evaluate the effectiveness of the state in economic development 	<ul style="list-style-type: none"> Headquarters Regional headquarters Research and development centre Branch plant Single plant location Multi-plant location Outsourcing Cross border investment Foreign direct investment (FDI) Inward investment Outward investment Government planning Government incentive Export Processing Zone Industrial cluster Science/techno/business park 	

Topic: Globalisation of Economic Activity			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> • Supranational bodies and their impact on national and regional economies <ul style="list-style-type: none"> o Trading Blocs/Regional Blocs (e.g. EU, NAFTA, AFTA) o International institutions (e.g. IMF, WTO) 	<ul style="list-style-type: none"> • Discuss the role of supranational bodies and evaluate their impact on national and regional economies 	<ul style="list-style-type: none"> • Supranational body • Regional grouping 	
<p>Fieldwork/Techniques</p> <ul style="list-style-type: none"> • Examine the global variations in economic wealth using maps and graphs • Use pattern of product/resource flows to emphasise global interdependence • Small scale investigation study (e.g. interviews) to look at the changing economic activities over time of a region • Research into a TNC: its operations and impact • Primary research into the changing nature of work or geographical issues related to the workplace 			

Topic: Population Issues and Challenges			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>1. Population Dynamics</p> <ul style="list-style-type: none"> • Fertility <ul style="list-style-type: none"> ○ Contemporary fertility differentials at global and national levels ○ Proximate variables affecting fertility <ul style="list-style-type: none"> – Biological (e.g. years in marriage, patterns of sexual activity, length of breastfeeding, IVF, sterilisation, use of contraception, induced abortions) – Socio-economic (e.g. economic/social value of children, women's status in education and work) – Institutional (e.g. government policies and religion) • Mortality <ul style="list-style-type: none"> ○ Contemporary mortality differentials at global and national levels 	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Discuss the fertility differentials between LDCs and DCs • Discuss how the different proximate variables affect fertility in LDCs and DCs • Evaluate the impact of governments' influence on the proximate variables in attempting to achieve a desired fertility rate • Discuss the variations of mortality between LDCs and DCs 	<ul style="list-style-type: none"> • Fertility • Crude birth rate • Total fertility rate • Age-specific fertility rate • Replacement level • Infertility • Mortality • Crude death rate • Mortality rate • Infant mortality rate • National mortality differentials 	<ul style="list-style-type: none"> • Good governance • Multi-racialism • Resilience • Resourcefulness • Respect for diversity • Sense of belonging

Topic: Population Issues and Challenges			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> o Factors affecting mortality <ul style="list-style-type: none"> – Demographic (e.g. age and gender) – Medical technology (e.g. advances in medical care) – Public health measures (e.g. sanitation, vaccination) – Socio-economic changes (e.g. standard of living) – Political (e.g. genocide, wars) – Epidemics (e.g. Spanish 'flu) and pandemics (e.g. AIDS) • Migration <ul style="list-style-type: none"> o Concepts <ul style="list-style-type: none"> – Time: short and long term movements – Distance (national and transnational): origin and destination – Transnational movement: skilled and unskilled labour o Issues in migration <ul style="list-style-type: none"> – Labour migration and impact – Identity and nationhood 	<ul style="list-style-type: none"> • Discuss how different factors affect mortality in LDCs and DCs • Discuss why the infant mortality rate is regarded as one of the best measures of a country's socio-economic progress • Compare and analyse the extent of migration with reference to time, distance and transnational movements • Discuss the causes, processes, patterns and results of recent migratory flows • Assess the consequences of migratory flows with reference to the feminisation of labour and to identity and nationhood 	<ul style="list-style-type: none"> • Life expectancy • Epidemics • Pandemics • Migration • Net migration • Push-pull factors • Mobility of labour/labour flows • Origin • Destination • Internal migration • Transnational movement • Skilled labour • Unskilled labour • Labour migration • Identity • Nationhood 	

Topic: Population Issues and Challenges

Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>2. Implications of Population Change</p> <ul style="list-style-type: none"> • Population Composition and Distribution <ul style="list-style-type: none"> ○ Overview of world population growth and future projections in LDCs and DCs <ul style="list-style-type: none"> – Population distribution across space and inequalities in distribution – The need for and problems of population forecasting at national scale – Problems of population prediction – Future problems and opportunities resulting from population change and population policies in different parts of the world ○ Interpretation of population pyramids <ul style="list-style-type: none"> – The interpretation of population pyramids, and their relationship to growth rates – Dependency and its implications <ul style="list-style-type: none"> ◆ Coping with population growth (providing housing, work and services) ◆ Coping with population loss (maintaining viable communities) – The value and limitations of population pyramids in prediction 	<ul style="list-style-type: none"> • Discuss the reasons for changes and variations in population composition and distribution • Assess the economic, demographic, social and political implications of changes and variations in population structure and distribution • Compare the strategies used in LDCs and DCs in coping with population change • Discuss the issues of population dependency • Discuss how population structure is affected by changes in family structure (single parent/single person households), economic change and gender imbalance • Critically evaluate the impact of changing population structures on issues related to the provision of leisure, employment and health and welfare services • Discuss the value and limitations of population pyramids in predicting population change 	<ul style="list-style-type: none"> • Population composition • Population distribution • Population density • Population pyramid • Population structure • Dependency • Dependency ratio 	

Topic: Population Issues and Challenges

Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> o Socio-economic composition <ul style="list-style-type: none"> – Ethnic diversity – Concept of inequality between different populations and between different sectors of the same population – Indices used to measure the inequalities in populations • Population Change and Planning <ul style="list-style-type: none"> o Population growth in relation to Demographic Transition Theory <ul style="list-style-type: none"> – The demographic transition model and its usefulness – Consideration of the 5th stage o Anti-natal and pro-natal policies <ul style="list-style-type: none"> – Role of governments in planning developments in the light of forecasts of population change (both in sheer numbers and also in the composition of national populations) – Population forecasting and government policies affecting population growth and their implications • Population-resource Relationships <ul style="list-style-type: none"> o Concepts of carrying capacity, optimum population, overpopulation and underpopulation 	<ul style="list-style-type: none"> • Discuss the socio-economic differentials among various ethnic groups • Discuss the criteria used to measure inequalities in populations on a global or national scale • Discuss the level of inequality that exists between populations and between different sectors of the same population • Discuss the links between Demographic Transition Theory and age structure • Discuss the various stages of the Demographic Transition Theory • Apply the Demographic Transition Theory to population growth in LDCs and DCs • Evaluate the reasons for having pro or anti-natal policies • Compare the effectiveness of anti/pro-natal policies in LDCs and DCs • Analyse how population growth is affected by government planning • Discuss the factors that characterise overpopulation and underpopulation 	<ul style="list-style-type: none"> • National ethnic composition • Ethnic diversity • Demographic Transition Theory • Anti-natal policy • Pro-natal policy • Population forecasting • Carrying capacity • Optimum population • Overpopulation • Underpopulation 	

Topic: Population Issues and Challenges

Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> o Population-resource theories, their origins and value <ul style="list-style-type: none"> – Malthus – Meadows – I=PAT where 'I' stands for 'Impact', 'P' for 'Population', 'A' for 'Affluence' and 'T' for 'Technology' (after Ehrlich and Holdren) o Development and resource use <ul style="list-style-type: none"> – Global variations in resource use – Changes in society (technological, economic and political) result in changing appraisals of resources and environments, their use and management o Hedonist vs conservationist views of the population-resource relationship and their consequences <ul style="list-style-type: none"> – Relationship of population growth to environmental conditions and the changing resource base – Contrasting assessment of population-resource relationships – Sustainable development 	<ul style="list-style-type: none"> • Discuss the relationship between population growth and resource utilisation • Compare resource use in LDCs and DCs • Discuss how changes in society result in the changing appraisal of resources and environments • Evaluate hedonist/conservationist approaches on the sustainability of resource use and how they impact population change and resource use 	<ul style="list-style-type: none"> • Malthus' Theory • Meadows and the Club of Rome/Limits to Growth Theory • I=PAT • Development • Resource • Resource use • Resource appraisal • Renewable resource • Non-renewable resource • Resource depletion • Resource management • Ecological footprint • Sustainable development 	

Topic: Population Issues and Challenges			
Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>Fieldwork/Techniques:</p> <ul style="list-style-type: none"> • Use of census data to look at dynamics of population change • Limitations and benefits of using choropleth/dot maps to show population density/distribution • A research study using a variety of sources and data to study migration flows and patterns • Interviews with migrants • Construction of population structure of a particular place 			

Topic: Urban Issues and Challenges

Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>1. Urbanisation</p> <ul style="list-style-type: none"> • Overview of Urbanisation <ul style="list-style-type: none"> ○ Concept of urbanisation and its relationship to urban growth ○ Sub-urbanisation, counter-urbanisation and re-urbanisation in the developed world ○ Urbanisation trends in LDCs and DCs • Characteristics and functions <ul style="list-style-type: none"> ○ World/Global cities ○ Primate cities 	<p>Students will be able to:</p> <ul style="list-style-type: none"> • Discuss the factors causing initial and subsequent growth of urban settlements/urbanisation • Discuss the relationship between urbanisation and its relationship to urban growth • Distinguish between counter-urbanisation and sub-urbanisation and re-urbanisation • Discuss the economic and social factors resulting in different forms of decentralisation of population in the DCs • Evaluate the economic, social and environmental consequences of decentralisation • Compare the urbanisation trends in LDCs and DCs • Discuss the characteristics and functions of world/global cities • Compare and account for the global growth of mega-cities 	<ul style="list-style-type: none"> • Urbanisation • Urban growth • Sub-urbanisation • Counter-urbanisation • Re-urbanisation • Urban sprawl • Deconcentration/ decentralisation • Dispersion of population • Re-distribution of population • Rates of urbanisation • Urban hierarchy • Range • Threshold • Primacy 	<ul style="list-style-type: none"> • Good governance • Resourcefulness • Respect for diversity • Sense of belonging

Topic: Urban Issues and Challenges

Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>2. Urban Dynamics</p> <ul style="list-style-type: none"> • Competition for space (Bid Rent Theory) <ul style="list-style-type: none"> ○ Bid Rent Theory and the competition for space may be studied in the context of urban zoning of economic activity and residential development ○ Functional zoning: the changing nature of the central city and industrial location within urban settlements (manufacturing and services) • Influences on Urban Structure <ul style="list-style-type: none"> ○ Historical forces (e.g. colonial cities) ○ State planning (e.g. planned cities) ○ Decentralisation (e.g. commuting, telecommuting and the rise of suburban office) ○ Global economy (e.g. multimedia corridor, mega developments, megalopolis) ○ The future form of cities and their surroundings 	<ul style="list-style-type: none"> • Compare the reasons and consequences of the growth of primate cities in LDCs and DCs • Compare the trends and characteristics between world cities, global cities and primate cities • Evaluate the usefulness of Bid Rent Theory in explaining urban zoning • Compare and account for the different land-use zones in different cities • Compare the relative importance of historical forces, state planning, decentralisation and the global economy in influencing the urban structure of cities 	<ul style="list-style-type: none"> • Million city • Megacity • World/global city • Primate city • Bid Rent Theory • Distance-decay • Urban density gradient • Urban structure • Functional zoning • Commercial zone • Residential zone • Industrial zone • Zone of discard/zone of transition • Post-modern city 	

Topic: Urban Issues and Challenges

Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> • The Central City <ul style="list-style-type: none"> ○ Functions of the central city (including CBD), inner and outer areas and changes over time ○ Centrifugal and centripetal forces in the central city ○ Renewal and gentrification <ul style="list-style-type: none"> - Strategies for re-imaging cities (e.g. cultural quarters, 24-hour cities, heritage tourism, flagship projects) <p>3. Managing Urban Environments</p> <ul style="list-style-type: none"> • Housing problems in LDCs and DCs <ul style="list-style-type: none"> ○ Issues of homelessness and substandard housing for the urban poor and the resulting impacts (e.g. environmental impact) ○ Management of housing problems (e.g. new towns, relocation housing, self-help housing, site-and-service schemes) 	<ul style="list-style-type: none"> • Discuss the changes of the central city over time • Compare and account for the location of the different functions in the central city • Assess the range of public and private initiatives used in urban regeneration • Assess the success of the re-imaging of cities • Discuss the reasons for and effects of gentrification • Use examples from selected cities to highlight the dynamic nature of the central city <ul style="list-style-type: none"> • Discuss the nature and causes of inner city decline • Discuss the problems of homelessness in large urban areas • Analyse the problems arising from decline and decay in the inner zones and some suburbs • Analyse the relationship between social and demographic changes in urban areas and their effects upon the size, type and location of housing developments <ul style="list-style-type: none"> • Assess the strategies used to manage housing problems in selected urban areas 	<ul style="list-style-type: none"> • Brownfield development • Central city/central business district • Centralisation • Centrifugal force • Centripetal force • Gentrification • Inner city • Urban renewal • Rejuvenation • Re-imaging <ul style="list-style-type: none"> • Homelessness • Substandard housing • Low income housing • Slum • Squatter settlement • Urban deprivation 	

Topic: Urban Issues and Challenges

Content	Learning Outcomes	Main Concepts	Values/Attitudes
<ul style="list-style-type: none"> • Transport problems <ul style="list-style-type: none"> o Transport problems in urban areas and the resulting impacts (e.g. environmental impact) o Management of transport problems (e.g. restricting private car ownership, increasing road tax, road pricing, improvement of public transport, carbon tax) • Socio-economic polarisation <ul style="list-style-type: none"> o Factors causing socio-economic polarisation (e.g. migration, education, employment, age) o Issues of crime, access to services for the urban poor, social segregation (e.g. enclaves, ghettos), economic deprivation 	<ul style="list-style-type: none"> • Discuss the transport problems in urban areas • Compare the impact of transport problems in urban areas in LDCs and DCs • Assess the strategies used to manage transport problems in selected urban areas • Discuss the factors causing the segregation of social groups in urban areas • Compare the extent of social problems between urban areas in the LDCs and DCs 	<ul style="list-style-type: none"> • Transport congestion • Urban pollution • Socio-economic polarisation • Dualism • Social segregation • Economic deprivation • Unemployment • Underemployment • Formal sector • Informal sector 	

Topic: Urban Issues and Challenges

Content	Learning Outcomes	Main Concepts	Values/Attitudes
<p>Fieldwork/Techniques</p> <ul style="list-style-type: none"> • Survey (e.g. urban land use survey, traffic/pedestrian count) • Mapping (e.g. changing land use in the CBD, delimiting the CBD) • Investigate patterns of retail, office, industrial, residential and recreational use (e.g. through interviews) • Decision-making exercise on one urban site with competing potential uses • Using secondary data, carry out a global survey of contrasts in levels of urbanisation and rates of urban growth, spatially and over time 			

SUGGESTED BOOKLIST

1. General Texts

Baylis, T	A Concise Advanced Geography	Oxford University Press
Guinness, P and Nagle, G	Advanced Geography: Concepts and Causes	Hodder and Stoughton
Nagle, G and Spencer, K	Advanced Geography Through Diagrams	Oxford University Press
Prosser, R; Raw, M and Bishop, V	Landmark AS Geography	Collins
Waugh, D	Geography – An Integrated Approach	Nelson
Witherick, M	Environment and People	Nelson Thornes

2. Data and Reference Sources

Small, J and Witherick, M	A Modern Dictionary of Geography	Hodder and Stoughton
Goudie, A	The Encyclopaedia of Physical Geography	Longman
Johnston, R (Ed)	Dictionary of Human Geography	Penguin
World Bank	World Development Report	The World Bank

3. Physical Geography

Abbott, P	Natural Disasters (4 th ed.)	McGraw-Hill Education
Barry, R and Chorley, R	Atmosphere, Weather and Climate	Routledge
Bishop, V and Prosser, R	Landform Systems	Collins
Bishop, V and Prosser, R	Water Resources: Process and Management	Collins
Bishop, V	Hazards and Responses	Collins
Chandler, T	Modern Meteorology and Climate	Nelson Thornes
Christopherson, R	Geosystems (5 th ed.)	Pearson
Collard, D	Physical Geography of Landscape	Collins
Cotton, WR	Human Impacts on Weather and Climate	Cambridge University Press
Davie, T	Fundamentals of Hydrology	Routledge
Digby, B	The Physical Environment	Heinemann
Doherty, A et al	River Basin Management	Hodder Arnold H&S
Goudie, A	Nature of the Environment	Blackwells
Gupta, A	The Physical Geography of Southeast Asia	Oxford University Press
Gupta, A and Pitts, J (eds)	Physical Adjustments in a Changing Landscape – the Singapore Story	Singapore University Press
Hanwell, J D	Atmospheric Processes	Harpercollins
Huggett, R J	Fundamentals of Geomorphology	Routledge
Knapp, B; Ross S and McCrae, D	The Challenge of the Natural Environment	Longman
MacKenzie, F	Our Changing Planet	Prentice Hall
Miller, G T	Environmental Science – Working with the Earth	Wadsworth Publishing Co
Newson, M D	Hydrology and the River Environment	Oxford University Press
Park, C	The Environment – Principles and Applications	Routledge
Prosser, R	Managing Environmental Systems	Nelson Thornes
Prosser, R	Managing Natural Systems	Nelson Thornes
Prosser, R	Natural Systems and Human Responses	Nelson Thornes
Reading, A et al	Humid Tropical Environments	Blackwells

Robinson, P and Henderson-Sellers, A	Contemporary Climatology	Longman
Ross, S	Natural Hazards	Nelson Thornes
Selby, M J	Hillslope Materials and Processes	OUP
Skinner, B et al	The Dynamic Earth: An Introduction to Physical Geography	John Wiley and Sons
Smith, K	Environmental Hazards: Assessing Risk and Reducing Disaster	Routledge
Warburton, P	Atmospheric Processes and Human Influence	Collins
Weyman, D	Tectonic Processes	Allan and Unwin
Wharton, G	Managing River Environments	Cambridge University Press
Wright, D	Meteorology	Blackwells
Wright, L	Environmental Systems and Human Impact	Cambridge University Press
4. Human Geography		
Amin, A and Thrift, N	Globalisation, Institutions and Regional Development in Europe	Oxford University Press
Binns, T	Tropical Africa	Routledge
Bruce, J et al	Urban Change and Management	Hodder and Stoughton
Carr, M	New Patterns: Process and Change in Human Geography	Nelson Thornes
Chapman, C and Baker, K	The Changing Geography of Asia	Routledge
Chrispin, J and Jegede, F	Population, Resources and Development	Collins
Clark, G L	Asian NIEs and the Global Economy: Industrial Restructuring and the Corporate Strategy in the 1990s	John Hopkins University Press
Clout, H et al	Western Europe – Geographical Perspectives	Longman
Cole, J	A Geography of Major World Regions	Routledge
Dicken, P	Global Shift: Reshaping the Global Economic Map in the 21 st Century	The Guildford Press
Dickenson, JP	A Geography of the Third World	Methuen
Digby, B	The Human Environment	Heinemann
Drakakis-Smith, D and Smith, D	Third World Cities	Routledge
Elcombe, D	The Fragile Environment – Pollution and Abuse	Nelson Thornes
Elliot, P	An Introduction to Sustainable Development	Routledge
Flint, C and Flint, D	Urbanisation: Changing Environments	Collins
Gereffi, G and Korzeniewicz, M	Commodity Chains and Global Capitalism	Preager
Gould, W and Findlay, A	Population Migration and the Changing World Order	John Wiley and Sons
Grove, A	The Changing Geography of Africa	Oxford University Press
Guinness, P	Brazil: Advanced Case Studies	Hodder and Stoughton
Hall, R	World Population Trends	Cambridge University Press
Hall, T	Urban Geography	Routledge
Harrison, P	Inside the Third World	Penguin
Held, D et al	Global Transformations: Politics, Economics and Culture	Polity
Hornby, W and Jones, M	An Introduction to Population Geography	Cambridge University Press
Hoyle, B	Integrated Human Geography	Longman
Jackson, P et al	Transnational Spaces	Routledge
Jacobs, J	Cities and the Wealth of Nations	Vintage

Jones, H Knapp, B Korten, D C Korten, D C Millar, S	Population Geography The Challenge of the Human Environment When Large Corporations Rule the World The Post-Corporate World The Geography Collection: Our Environment South America	The Guildford Press Longman Berrett-Koehler Berrett-Koehler Hodder and Stoughton Hodder Arnold H&S
Morris, A Nagle, G Nagle, G and Spencer, K Nagle, G and Spencer, K	Development and Underdevelopment Changing Settlements Sustainable Development	Nelson Thornes Nelson Thornes Hodder and Stoughton
Pacione, M Price, B and Guinness, P Prosser, R Raw, M Savage, S and Kong, L	Urban Geography: A Global Pacione North America: An Advanced Geography Human Systems and the Environment Manufacturing Industry: Impact of Change The Naga Awakens: Growth and Change in Southeast Asia	Routledge Hodder Arnold H&S Nelson Thornes Collins Times Academic Press
Witherick M	Development, Disparity and Dependence, A Study of the Asia Pacific Region	Nelson Thornes
Witherick, M	The Urban World	Nelson Thornes
5. Fieldwork and Techniques		
Holmes, D and Farbrother, D	A-Z Advancing Fieldwork	Geographical Association Collins
Lenon, B and Cleaves, P	Fieldwork Techniques and Projects in Geography	
Miller, G	Fieldwork Ideas in Action	Hodder and Stoughton
Nagle, G and Witherick, M	Skills and Techniques for Geography A-level	Stanley Thornes
St John, P and Richardson, D	Methods of Presenting Fieldwork Data	Geographical Association
Taylor, L Warn, S	Geographical Techniques Fieldwork: A Self-Study Guide	Pearson Publishing Hodder and Stoughton
6. Journals		
Geofile	Quarterly	Nelson Thornes
Geographical Review	Quarterly	Philip Allan
Geography	Three annually	Geographical Association
Teaching Geography	Three annually	Geographical Association
7. Other Sources		

Numerous other sources exist which will be very suitable for teaching the H1 and H2 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 A-level students. The world wide web offers many opportunities to access information on geographical topics.