

Syllabus GEOGRAPHY 2018-19 1B

Aims

The syllabus aims summarise the context in which you should view the syllabus content and describe the purposes of a course based on this syllabus. They are not listed in order of priority.

The aims are to develop: • an understanding of location on a local, regional and global scale • an awareness of the characteristics, distribution and processes affecting contrasting physical and human environments • an understanding of the ways in which people interact with each other and with their environment • an awareness of the contrasting opportunities and constraints presented by different environments • an appreciation of and concern for the environment • an appreciation of the earth including its people, places, landscapes, natural processes and phenomena.

Content

The syllabus is divided into three themes which have been designed to develop an understanding of both the natural and the human environment: 1 Population and settlement 2 The natural environment 3 Economic development.

Assessment

All candidates take three components. All candidates take Paper 1 and Paper 2, and either Component 3 or Paper 4.

All candidates take: and:

Paper 1 1 hour 45 minutes Geographical Themes 45% 75 marks, weighted to 100 marks Candidates answer three questions, each worth 25 marks. Candidates must answer one question from each section Externally assessed

Paper 2 1 hour 30 minutes Geographical Skills 27.5% 60 marks Candidates answer all the questions Externally assessed

All candidates take either: or:

Component 3 Coursework 27.5% 60 marks Teachers set one Centre-based assignment of up to 2000 words Centre-based assessment*

Paper 4 1 hour 30 minutes Alternative to Coursework 27.5% 60 marks Candidates answer two compulsory questions, completing a series of written tasks Externally assessed

Resources

Questions in all written papers are resource based. The resources may be photographic, map extracts, satellite images, drawings, diagrams, graphs, text extracts, statistics and tables of data.

Resource materials come from various world areas in order to meet the aims of an international syllabus and examination. Candidates may be dealing with world areas with which they are not familiar. The resources used in questions do not require specific regional knowledge and are designed to prompt candidates to use general principles they have studied.

Theme 1: Population and settlement

1.1 Population dynamics Candidates should be able to: Describe and give reasons for the rapid increase in the world's population Show an understanding of over-population and under-population Understand the main causes of a change in population size

Give reasons for contrasting rates of natural population change

Describe and evaluate population policies

Further guidance

Causes and consequences of over-population and under-population How birth rate, death rate and migration contribute to the population of a country increasing or declining Impacts of social, economic and other factors (including government policies, HIV/AIDS) on birth and death rates

Case Studies required for 1.1 • A country which is over-populated • A country which is under-populated • A country with a high rate of natural population growth • A country with a low rate of population growth (or population decline)

1.2 Migration Candidates should be able to: Explain and give reasons for population migration

Demonstrate an understanding of the impacts of migration

Further guidance Internal movements such as rural-urban migration, as well as international migrations, both voluntary and involuntary Positive and negative impacts should be considered, on the destination and origin of the migrants, and the migrants themselves

Case Study required for 1.2 • An international migration

1.3 Population structure Candidates should be able to: Identify and give reasons for and implications of different types of population structure

Further guidance Age/sex pyramids of countries at different levels of economic development

Case Study required for 1.3 • A country with a high dependent population

1.4 Population density and distribution Candidates should be able to: Describe the factors influencing the density and distribution of population

Further guidance Physical, economic, social and political factors

Case Studies required for 1.4 • A densely populated country or area (at any scale from local to regional) • A sparsely populated country or area (at any scale from local to regional)

1.5 Settlements and service provision Candidates should be able to: Explain the patterns of settlement

Describe and explain the factors which may influence the sites, growth and functions of settlements Give reasons for the hierarchy of settlements and services

Further guidance Dispersed, linear, and nucleated settlement patterns Influence of physical factors (including relief, soil, water supply) and other factors (including accessibility, resources) High-, middle- and low-order settlements and services. Sphere of influence and threshold population

Case Study required for 1.5 • Settlement and service provision in an area

1.6 Urban settlements Candidates should be able to: Describe and give reasons for the characteristics of, and changes in, land use in urban areas

Explain the problems of urban areas, their causes and possible solutions

Further guidance Land use zones including the Central Business District (CBD), residential areas, industrial areas and the rural-urban fringe of urban areas in countries at different levels of economic development The effect of change in land use and rapid urban growth in an urban area including the effects of urban sprawl Different types of pollution (air, noise, water, visual), inequality, housing issues, traffic congestion and conflicts over land use change

Case Study required for 1.6 • An urban area or areas

1.7 Urbanisation Candidates should be able to: Identify and suggest reasons for rapid urban growth Describe the impacts of urban growth on both rural and urban areas, along with possible solutions to reduce the negative impacts

Further guidance Reference should be made to physical, economic and social factors which result in rural depopulation and the movement of people to major cities The effects of urbanisation on the people and natural environment. The characteristics of squatter settlements Strategies to reduce the negative impacts of urbanisation

Case Study required for 1.7 • A rapidly growing urban area in a developing country and migration to it

Theme 2: The natural environment

2.1 Earthquakes and volcanoes Candidates should be able to: Describe the main types and features of volcanoes and earthquakes

Describe and explain the distribution of earthquakes and volcanoes

Describe the causes of earthquakes and volcanic eruptions and their effects on people and the environment Demonstrate an understanding that volcanoes present hazards and offer opportunities for people Explain what can be done to reduce the impacts of earthquakes and volcanoes

Further guidance Types of volcanoes (including strato-volcanoes [composite cone] and shield volcano) Features of volcanoes (including crater, vent, magma chamber) Features of earthquakes (including epicentre, focus, intensity) The global pattern of plates, their structure, and an awareness of plate movements and their effects – constructive/divergent, destructive/convergent and conservative plate boundaries

Case Studies required for 2.1 • An earthquake • A volcano

2.2 Rivers Candidates should be able to: Explain the main hydrological characteristics and processes which operate within rivers and drainage basins

Demonstrate an understanding of the work of a river in eroding, transporting and depositing Describe and explain the formation of the landforms associated with these processes

Demonstrate an understanding that rivers present hazards and offer opportunities for people

Explain what can be done to manage the impacts of river flooding

Further guidance Characteristics of rivers (including width, depth, speed of flow) and drainage basins (including watershed, tributary, confluence) Processes which operate in a drainage basin (including interception, infiltration, throughflow, groundwater flow, evaporation, overland flow)

Forms of river valleys – long profile and shape in cross section, waterfalls, potholes, meanders, oxbow lakes, deltas, levées and flood plains Causes of hazards including flooding and river erosion Opportunities of living on a flood plain, a delta or near a river

Case Study required for 2.2 • The opportunities presented by a river or rivers, the associated hazards and their management

2.3 Coasts Candidates should be able to: Demonstrate an understanding of the work of the sea and wind in eroding, transporting and depositing Describe and explain the formation of the landforms associated with these processes

Describe coral reefs and mangrove swamps and the conditions required for their development Demonstrate an understanding that coasts present hazards and offer opportunities for people Explain what can be done to manage the impacts of coastal erosion

Further guidance

Cliffs, wave-cut platforms, caves, arches, stacks, bay and headland coastlines, beaches, spits, and coastal sand dunes

Hazards including coastal erosion and tropical storms

Case Study required for 2.3 • The opportunities presented by an area or areas of coastline, the associated hazards and their management

2.4 Weather Candidates should be able to: Describe how weather data is collected

Make calculations using information from weather instruments Use and interpret graphs and other diagrams showing weather and climate data

Further guidance Describe and explain the characteristics, siting and use made of a Stevenson screen Rain gauge, maximum-minimum thermometer, wet-and-dry bulb thermometer (hygrometer), sunshine recorder, barometer, anemometer and wind vane, along with simple digital instruments which can be used for weather observations; observations of types and amounts of cloud

2.5 Climate and natural vegetation Candidates should be able to: Describe and explain the characteristics of two climates: • equatorial • hot desert

Describe and explain the characteristics of tropical rainforest and hot desert ecosystems Describe the causes and effects of deforestation of tropical rainforest

Further guidance Climate characteristics (including temperature [mean temperature of the hottest month, mean temperature of the coolest month, annual range]; and precipitation [the amount and seasonal distribution]) Factors influencing the characteristics of these climates (including latitude, pressure systems, winds, distance from the sea, altitude and ocean currents) Climatic graphs showing the main characteristics

of temperature and rainfall of the two climates The relationship in each ecosystem of natural vegetation, soil, wildlife and climate Effects on the natural environment (both locally and globally) along with effects on people

Case Studies required for 2.5 • An area of tropical rainforest • An area of hot desert

Theme 3: Economic development

Please see guidance on case studies for the options when planning case studies and note whether the word 'including' is used in the further guidance column.

3.1 Development Candidates should be able to: Use a variety of indicators to assess the level of development of a country

Identify and explain inequalities between and within countries Classify production into different sectors and give illustrations of each Describe and explain how the proportions employed in each sector vary according to the level of development

Describe and explain the process of globalisation, and consider its impacts

Further guidance Indicators of development (including GNP per capita, literacy, life expectancy and composite indices, e.g. Human Development Index (HDI))

Primary, secondary, tertiary and quaternary sectors Use of indicators of development and employment structure to compare countries at different levels of economic development and over time The role of technology and transnational corporations in globalisation along with economic factors which give rise to globalisation Impacts at a local, national and global scale

Case Study required for 3.1 • A transnational corporation and its global links

3.2 Food production Candidates should be able to: Describe and explain the main features of an agricultural system: inputs, processes and outputs

Recognise the causes and effects of food shortages and describe possible solutions to this problem

Further guidance Farming types: commercial and subsistence; arable, pastoral and mixed; intensive and extensive The influence of natural and human inputs on agricultural land use. Inputs including natural inputs (relief, climate and soil) and human inputs (economic and social). Their combined influences on the scale of production, methods of organisation and the products of agricultural systems Natural problems which cause food shortages (including drought, floods, tropical storms, pests) along with economic and political factors (including low capital investment, poor distribution/transport difficulties, wars) The negative effects of food shortages, but also the effects of food shortages in encouraging food aid and measures to increase output

Case Studies required for 3.2 • A farm or agricultural system • A country or region suffering from food shortages

3.3 Industry Candidates should be able to: Demonstrate an understanding of an industrial system: inputs, processes and outputs (products and waste) Describe and explain the factors influencing the distribution and location of factories and industrial zones

Further guidance Industry types: manufacturing, processing, assembly and high technology industry

The influence of factors including land, labour, raw materials and fuel and power, transport, markets and political factors Their combined influences on the location, scale of production, methods of organisation and the products of the system Industrial zones and/or factories with respect to locational and siting factors

Case Study required for 3.3 • An industrial zone or factory

3.4 Tourism Candidates should be able to: Describe and explain the growth of tourism in relation to the main attractions of the physical and human landscape Evaluate the benefits and disadvantages of tourism to receiving areas Demonstrate an understanding that careful management of tourism is required in order for it to be sustainable

Further guidance

Case Study required for 3.4 • An area where tourism is important

3.5 Energy Candidates should be able to: Describe the importance of non-renewable fossil fuels, renewable energy supplies, nuclear power and fuelwood; globally and in different countries at different levels of development Evaluate the benefits and disadvantages of nuclear power and renewable energy sources

Further guidance Non-renewable fossil fuels including coal, oil and natural gas. Renewable energy supplies including geothermal, wind, HEP, wave and tidal power, solar power and biofuels

Case Study required for 3.5 • Energy supply in a country or area

3.6 Water Candidates should be able to: Describe methods of water supply and the proportions of water used for agriculture, domestic and industrial purposes in countries at different levels of economic development Explain why there are water shortages in some areas and demonstrate that careful management is required to ensure future supplies

Further guidance Methods of water supply (including reservoirs/ dams, wells and bore holes, desalination)

The impact of lack of access to clean water on local people and the potential for economic development

Case Study required for 3.6 • Water supply in a country or area

3.7 Environmental risks of economic development Candidates should be able to: Describe how economic activities may pose threats to the natural environment, locally and globally

Demonstrate the need for sustainable development and management Understand the importance of resource conservation

Further guidance Threats to the natural environment including soil erosion, desertification, enhanced global warming and pollution (water, air, noise, visual)

Case Study required for 3.7 • An area where economic development is taking place causing the environment to be at risk

4 Details of the assessment

For information on the Assessment objectives (AOs), see section 5.

Paper 1 – Geographical Themes

Written paper, 1 hour 45 minutes, 75 marks

All candidates take Paper 1. Questions on the paper are resource based. The resources are for interpretation and analysis in answering a question or part questions. Candidates will be expected to know the location of the continents. All of the other information required to answer these part questions is within the resource itself. No previous knowledge is needed of the particular illustration presented. What is required is that candidates use the data provided to illustrate their understanding of the particular concept being assessed.

Questions are structured with gradients of difficulty and combine resource-based tasks and freeresponse writing requiring place-specific information.

The resources may be: • photographs • map extracts • sketch maps • drawings • diagrams • graphs • text extracts • statistics and tables of data • satellite images • use of GIS.

Resource materials are selected from various world areas and, as a result, candidates may be dealing with world areas with which they are not familiar. The resources do not require specific regional knowledge. This should be stressed to the candidates as they may be influenced in their question selection by the nature/location of the resource included.

Candidates should refer to appropriate case studies to illustrate the individual themes.

A case study may be selected because it relates to: • the local school area • a contemporary development such as the occurrence of a natural hazard in part of the world • a particular illustration with which the teacher is familiar • a presentation in a newspaper, web pages, on video, film, a well documented illustration in a textbook, etc.

A case study may also be based on a field study undertaken as part of the work for Component 3 (Coursework) or Paper 4 (Alternative to Coursework). Specific questions based on fieldwork will not be set in Paper 1, but candidates may use this information to illustrate answers in Paper 1.

Case studies should provide candidates with details of a particular illustration which can be profitably used in answers to certain questions on Paper 1. Some part questions on the paper require that reference is made to information from specific case studies made by candidates and opportunity is also provided for candidates to volunteer such details in answering other part questions.

Specific named illustrations of case studies have not been included in the syllabus. This is to give teachers complete freedom in selecting examples which they feel are most appropriate for their candidates.

It is important that candidates comply with the instructions for Paper 1. Only three questions are to be selected, one from each of the three sections. Sometimes within individual questions a choice is provided. It is very important that candidates make the correct choice and do not answer more than is required.

Candidates are also advised to note the sub-marks printed on the question paper. These are included in order to guide candidates to the amount of detail and length of response anticipated and to allow them to manage their time effectively.

Paper 2 – Geographical Skills

Written paper, 1 hour 30 minutes, 60 marks

All candidates take Paper 2 and must answer all the questions. The paper is based on testing skills of application, interpretation and analysis of geographical information, e.g. topographical maps, other maps, diagrams, graphs, tables of data, written material, photographs and pictorial material, and on the application of graphical and other techniques as appropriate. The questions in Paper 2 do not require specific information of place. Questions within Paper 2 which require knowledge and understanding (AO1) will be based on topics from the three main syllabus themes (see section 3).

Equipment required for Paper 2 Candidates should have the following in the examination room: • a pencil, rubber, ruler, a protractor and a calculator • access to a sheet of plain paper for measuring distance or for assisting with cross-sections on the large-scale map.

Mapwork question One question will be based on a large-scale map. The large-scale maps chosen for examination purposes will be on a scale of either 1:25 000 or 1:50 000 and will always contain a full key.

One third of the marks available on this paper are awarded to the mapwork question and, therefore, it is essential that candidates are proficient in map reading and interpretation skills to enable them to describe and analyse large-scale maps.

NOTE: All answers to this question must be based on map evidence only.

Candidates should be able to use a co-ordinate reference system and be able to give and to read four-figure and six-figure grid references to locate places

Candidates should be able to give directions, both in terms of a 16-point compass (such as north, north-north east, north east, etc.) and as a bearing from grid north of one place from another. It is, therefore, important that candidates have protractors in the examination room with them.

Candidates should be able to measure horizontal distances. This is most accurately done by using a straight-edged piece of paper and the scale line. If the line to be measured is curved, divide the curve into straight sections and rotate the paper after each straight section to follow the next straight section. Finally place the completed straight-edged piece of paper along the linear scale line on the map extract and read off the distance in kilometres/metres. This method avoids complicated mathematical calculations which can arise when rulers are used.

Contour reading, which enables candidates to calculate differences in height, should be practised.

Cross sections may be set for interpretation and candidates may be required to construct or complete a cross section.

Candidates should be able to translate the scale of a feature by describing its size and shape in real terms. They should also be proficient in using the key to the map to enable them to identify features on the map.

Candidates should be able to draw inferences about the physical and human landscape by interpretation of map evidence such as patterns of relief, drainage, settlement, communication and land use.

Candidates are advised to practise identifying basic landscape features such as river valleys and uplands, and to give brief descriptions of them using appropriate geographical terms (such as ridge, plateau, scarp,

flood plain) and simple adjectives showing an appreciation of their nature (such as broad, flat, steep-sided, deeply cut, gently sloping). To interpret these maps, candidates should be able to recognise essential differences in density of drainage, stream patterns, gradients or sizes of streams in relation to the relief. They should be able to describe the physical features of coastlines and the shape and form of river channels as they are shown on large-scale maps.

Practice in describing variations in land use should be part of the preparation for the examination. The interpretation of 'human' features would also require candidates to recognise and analyse patterns of settlement (dispersed, nucleated, linear) and candidates should be able to draw sketch maps illustrating these patterns. Candidates should be able to interpret and describe features of urban morphology as represented on large-scale maps and be able to describe the functions of and services provided by settlements. They should also be able to give reasons for the site and growth of individual settlements. Communication networks should be recognised in terms of their type and density in relation to physical and human features.

Maps, diagrams, graphs, tables of data, written material Questions will be set using some or all of these resources. They should be regarded as important ways of representing geographical data. They may be used to illustrate a basic principle and it is essential that candidates should be directed towards their interpretation. For example, a population pyramid may be used to illustrate the age and sex structure of a country. With this, a candidate may be required to describe the broad features of the population structure to show comparisons and contrasts between the male and female populations, the working and non-working population and the young-, middle- and old-age groups.

Maps based on global and other scales may be used and candidates may be asked to identify and describe significant features of the human and physical landscape on them, e.g. population distribution, population movements, transport networks, settlement layout, relief and drainage, etc. Candidates may be asked to recognise patterns and deduce relationships.

It is expected that candidates will be able to extract specified geographical information from graphs, diagrams, tables of data and written material. Various types of graphs, maps and diagrams (for example pictograms, line graphs, bar graphs, divided bar graphs, histograms, kite diagrams, flow diagrams, wind rose graphs, dispersion graphs, isoline maps, scatter graphs, choropleth maps, pie graphs, triangular graphs and radial graphs) may be used and candidates may be asked to describe variations and identify trends in information. Graphs may show, for example, temperature, birth rate, death rate, energy, rainfall distribution, river discharge, etc.

Candidates may be required to plot information on graphs when axes and scales are provided.

Data tables may provide information on physical phenomena, on economic activities, on population, on settlement, on agricultural and manufacturing output, etc. and candidates may be asked to describe and analyse features and trends from the data provided. They may also be asked to suggest an appropriate form of graphical representation for the data provided.

Written material may be extracts from books, periodicals and newspapers, and candidates will be expected to show an understanding of the material presented.

Photographic and pictorial material (including field sketches) Oblique photographs will be used. Candidates should be able to describe human and physical landscapes (landforms, natural vegetation, land use and settlement) and geographical phenomena from photographs, aerial photographs, satellite images and GIS.

Simple descriptions only will be required. Candidates may be expected to add specified detail on maps or other material provided, thereby applying geographical knowledge and understanding. Field sketches of physical and human landscapes may be used to stimulate geographical description and annotation. Cartoons illustrating a geographical theme may be set for interpretation and analysis.

Candidates may also be asked to use supporting material in conjunction with large-scale maps to identify, describe and analyse features and thereby recognise patterns and deduce trends.

Cambridge IGCSE Geography 0460 syllabus for 2017, 2018 and 2019. Details of the assessment

Centre-based assessment, 60 marks

Candidates must complete one coursework assignment, set by teachers, of up to 2000 words. The proposals for the coursework that may be undertaken by candidates must be approved beforehand by Cambridge.

The coursework assignment may be based on physical geography, human geography or on an interaction between physical and human geography and must be clearly related to one or more of the syllabus themes.

The time spent on the coursework assignments should reflect the weighting of the component in the total assessment (i.e. 27.5%). The prime consideration will be the quality of the content of the assignments in relation to the criteria on which assessment is based.

Centre-based assessment will provide a complementary assessment of the assessment objectives tested in Papers 1 and 2, with an emphasis on assessment objective 2, skills and analysis. The coursework assignments must cover the assessment criteria in the proportions given below.

Assessment criteria Marks allocated

AO1: Knowledge with understanding 12 AO2: Skills and analysis Observation and collection of data Organisation and the presentation of data Analysis and interpretation 12 12 12 AO3: Judgement and decision making (conclusion and evaluation) 12 Total: 60 marks

Teachers should devise and structure coursework assignment(s) to enable all candidates to fulfil the assessment criteria above. Differentiation should be achieved by candidates pursuing enquiries appropriate to their abilities, which allow them to display positive achievement.

The focus of assignments can be, but need not be, common to all candidates at a Centre. There should be enough variety and differentiation of tasks, and opportunity for individual initiative in all assignments, to fulfil the above assessment criteria at all levels of achievement.

Setting up a coursework assignment Teachers should structure each coursework assignment to promote: • the acquisition of geographical knowledge • the understanding and application of ideas • the development of skills and the clarification of values in a geographical context.

The coursework assignment should follow the accepted 'route to geographical enquiry' as below.

The route to geographical enquiry 1 Identification of issue, question or problem

A topic for investigation is recognised through observation, discussion, reading or previous study. The design of hypotheses to test the issue, question or problem.

2 Objectives of the study are defined

The objectives of the study are defined in specific terms. Decisions are made concerning: (a) what data is relevant to the study (b) how the data can be collected. 3 Collection of data Candidates carry out a group or individual set of tasks, which may include fieldwork to collect primary data, such as undertaking questionnaires, mapping or sketching, observation, recording counts or measurements. This may also involve gathering data from secondary sources such as census information, the internet, published maps, books, newspapers or magazines. 4 Selection and collation of data The teacher may collate data for class use. Candidates select data to develop the aims or hypotheses for the topic. 5 Presentation and recording of the results Candidates individually record results and present findings in appropriate forms using a variety of maps, graphs, etc. 6 Analysis and interpretation Candidates individually analyse and interpret their findings in response to the issue/question/problem with reference to relevant geographical concepts. 7 Making effective conclusions, evaluation and suggestions for further work Candidates individually draw conclusions from their findings and make evaluations related to the original objectives. If appropriate, comments may be made on the limitations of the data and possibilities for further study.

Examples of suitable coursework assignments

- The varying pattern of land use with distance from the centre of a settlement
- The differences between residential environments within a settlement
- The hierarchical distribution of shopping centres/leisure amenities within a settlement
- Possible locations for a new hypermarket
- Does the influence of a town decrease with distance from it?
- The problems caused by an uneven/unreliable supply of water within a selected area
- A study of agricultural patterns within an area
- Ways in which the industrial structure has changed in an area
- Are the leisure facilities of an area/town adequate for the needs of its population?
- The development of tourism in an area
- An analysis of the distribution, nature and possible reasons for the formation of selected landforms, e.g. along the course of a stream or at the coast
- The effects of anticyclones and depressions in influencing the weather recordings at a school weather station
- The nature of the environmental conflicts in an area
- Problems of landscape management and conservation in a national park

Each coursework assignment outline, showing the specific 'route to the enquiry', should be submitted to Cambridge for approval and comment in advance to ensure it complies with the requirements of the syllabus.

An example of an outline submission to Cambridge An investigation related to topic 1.5: Settlements and service provision:

'Is there a pattern to the distribution of settlements in area X and the types of services they offer?'

1 Identification of issue, question or problem. Definition of the area to be studied. Relationship to concepts studied for 1.5 of the syllabus – in particular, site, situation and functions of small settlements; services in relation to settlements – threshold, range of a service. Candidates will select hypotheses from the following list and devise one additional statement: 'Larger settlements will have a higher number of services.' 'Residents travel further to obtain high-level goods.' 'Services in smaller settlements serve the local community.' 'The number of services in smaller settlements has decreased recently.'

2 Objectives of the study are defined – the characteristics of each settlement – its site, situation, size, population, shops and other services, sphere of influence. How may each of these characteristics be investigated? What data collection methods are appropriate? The role of map study of both recent and older maps, counts,

observations and questionnaire layout and sampling techniques are discussed as a group and decisions made.

3 Collection of data – the methods of field investigation are outlined and carried out. The site and situation of the settlements are described by combining visual evidence recorded at each location with mapwork using a large-scale map. The size of each settlement – a count of the number of inhabited and uninhabited houses. The population of each settlement calculated using an average head-per-household figure or secondary data found. Recordings are made of the numbers and types of services found in each settlement – shops, telephone boxes, post boxes, bus stops, etc. Candidates are encouraged to make individual additional observations and take photographs. Questionnaires to residents to identify spheres of influence. More able candidates will devise three questions of their own to include in the group questionnaire. 4 Selection and collation of data – to be completed by the teacher but candidates will select the data related to their chosen hypotheses. 5 Presentation and recording of results – drawing of maps to show settlement distribution, desire lines for certain services, graphs, etc. Candidates will select appropriate graphs to present their results. 6 Analysis and interpretation – candidates identify trends, patterns and findings, and explain what they mean in relation to what they set out to investigate. 7 Making effective conclusions, evaluation and suggestions for further work – candidates draw conclusions and identify the key pieces of evidence that support them. The evaluation indicates what worked well and suggests improvements in the light of hindsight. Suggestions for future lines of enquiry are identified.