Guidance and Exemplars for the IGCSE Geography Fieldwork Opportunities

These will constitute the main source of practical skills on the examination paper; 6 marks per question in Section A and 8 marks per question in Section B. They were intended as out-of-classroom learning but some or all, if necessary can be undertaken as virtual fieldwork or classroom-based learning. It is hoped that at least two of an individual candidate's eight "opportunities" will be out-of-classroom. There is included later a strategy for covering five "opportunities" to the candidates during two full actual fieldwork days. It was never the intention of Edexcel to expect candidates to carry out eight full fieldwork investigations. It is not necessary that each of the four key stages in an investigation :

- planning
- data collection
- data presentation
- data analysis, concluding and evaluating

are addressed in all eight fieldwork opportunities. There is a sharp difference between Section A opportunities (The natural environment and people) and those in Section B (People and their environment). The focus in Section A as implied by the wording in the content grids i.e. measuring, surveying ... is on the first two key stages – planning and data collection. Questions 1, 2 and 3 will only assess this aspect of practical skills i.e. designing and implementing a relevant fieldwork investigation; measuring and recording data; field sketching. Section B, however, contains broader opportunities where the assessment focus will generally be on the later key stages of an investigation (i.e. data presentation, analysis, concluding and evaluation) but it would wise to also address the planning and field skills aspects of these opportunities. The spirit and letter of the Topic 6 (Urban environments) grid would, for instance, permit a Question 6 item on either planning or carrying out a land use/environmental quality survey. Addressing planning and field skills with these opportunities will also enable candidates to have greater awareness when it comes to presenting, analysing, concluding on the data. It is recommended that centres are mindful of both the out-of-classroom learning and practical skills columns in specification's content grids and page 4 of the specification where the skills are identified.

Types of Question item

Section A

Type 1 – Planning a data collection (measuring or surveying)

e.g. * Describe the planning that went into the measurement of water quality in a river.

* Describe how a fieldwork investigation of a beach profile was planned.

* How would you plan a survey of peoples' views on the management of a coastline threatened by either development or erosion ?

Type 2 – Implementing a field investigation/data collection

e.g. * Describe how data would be collected about water quality in a river.

* Describe how you would collect and record wind speed and precipitation (rainfall) data.

* Describe a survey of peoples' views on the management of a hazard event.

Type 3 – Sketching skills

e.g. * Draw an annotated sketch of a river channel to show how two of its features were measured in the field.

* Draw a sketch map of the site of a field investigation into beach sediments.

Section B

Type 1 – Planning a field investigation

e.g. * Describe how people's views on the use of renewable and non-renewable energy could be investigated.

* Describe how a fieldwork investigation of land use across an urban area could be planned.

* What aspects of a small-scale ecosystem could be investigated in the field ?

Type 2 – Presenting and analysing/concluding on provided data
(Use of graphic and statistical/arithmetic (e.g. totalling; means; ranking; range; trend; association ..) skills)

e.g. Figure 1a shows land use and environmental quality data collected at seven sites along a transect between the CBD and edge of a UK town.

(i) Using Figure 1a, complete the scattergraph (Figure 1b), to show how environmental quality changed along the transect.

(ii) What conclusions can be drawn about the relationship between environmental quality and land use ?

Type 3 – Evaluating data analyses and conclusions drawn
(Use of review and feedback)

e.g. * Figure 2a shows the total scores given by five factories during a fieldwork investigation to the importance of various location factors.

(i) Use Figure 2a to complete Figure 2b

(ii) Suggest how this investigation might be evaluated and improved.

* For a fieldwork investigation of farm production, suggest one positive and one negative aspect of the analysis of the data and information gathered.

Figures 1a, 1b, 2a & 2b

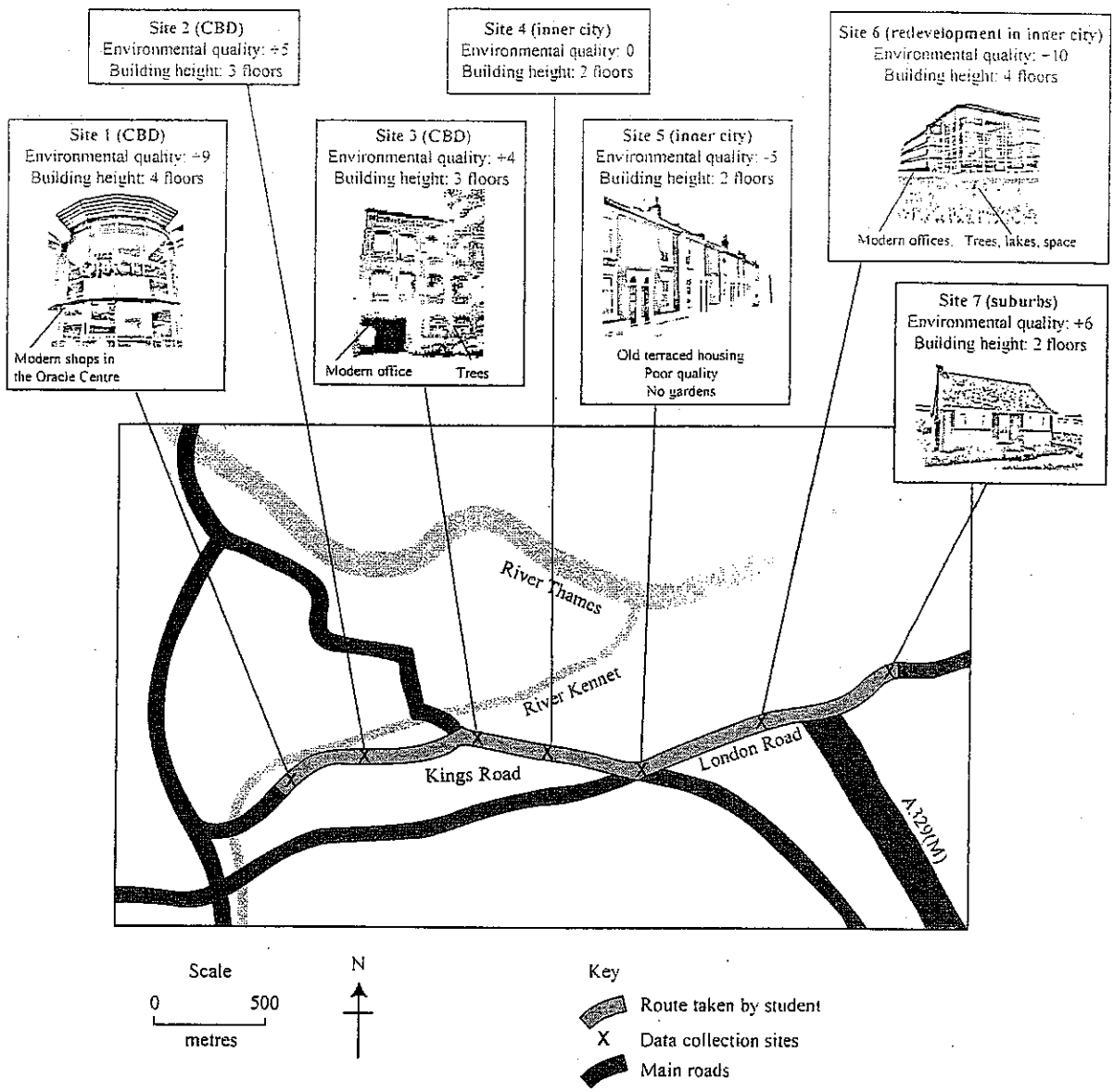

Figure 1a

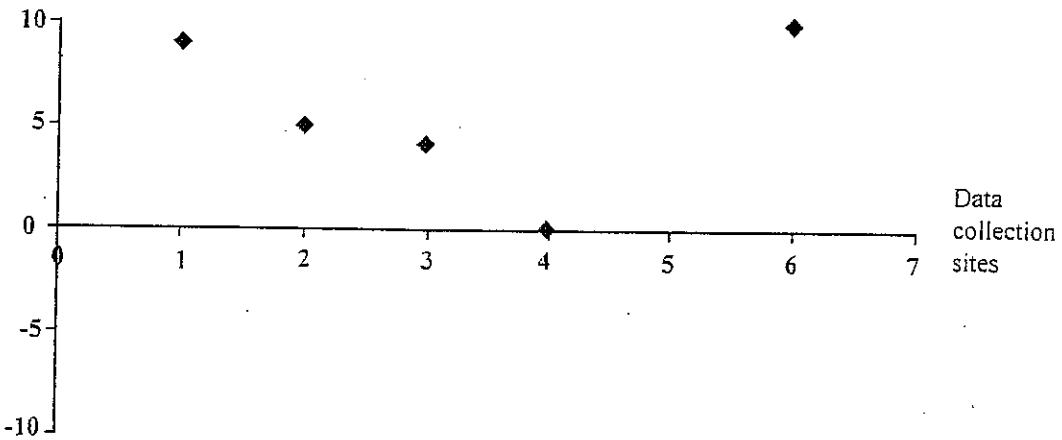

Figure 1b

Location Factors	Score of importance (out of 100)
Labour	85
World markets	80
Government policy	70
Transport	60
Energy	50
Local markets	50
Water	40
Raw materials	30

Figure 2a

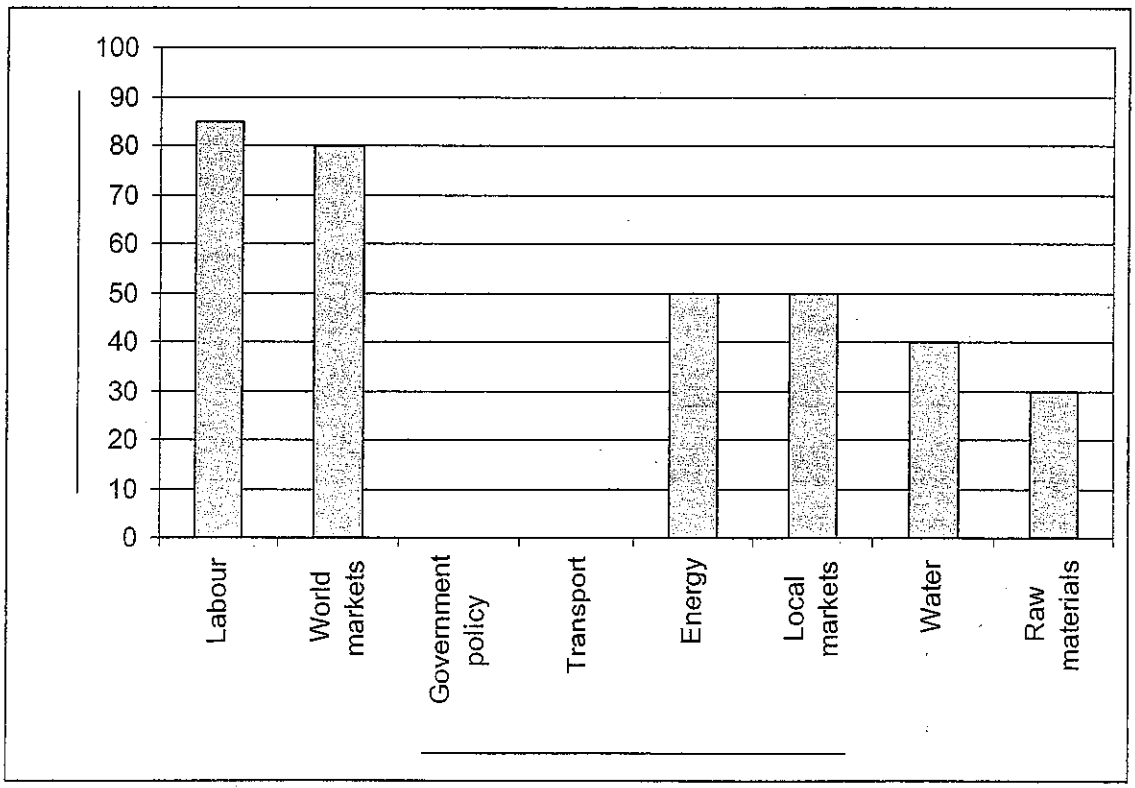

Figure 2b

Developing an Overall Fieldwork Strategy

It is recommended that centres plan their fieldwork opportunities as a two-year strategy. The exemplar model that follows is based on the choice of Units 1 (River environments), 3 (Hazardous environments), 4 (Economic activity and energy) and 6 (Urban environments) –

- Year 1 Field Day : River environments
  Data collection - channel measurement
  - water quality measurement
  2 fieldwork opportunities
- Year 2 Field Day : Urban environments
  Data collection -land use plotting
  - environmental quality survey
  - factory or service location
  with classroom follow-up
  3 fieldwork opportunities
- In-school : Hazardous environments
  Data collection – weather
- Homeworks : Hazardous environments
  Data collection – hazard management questionnaire design & survey (Year 1)
  Economic activity and energy
  Data collection and follow-up – energy use questionnaire design, survey and results (Year 2).

Notes of Guidance : Content of the Fieldwork Opportunities

Section A

- Rivers 1 : Select safe sites; use relevant equipment; measure variables i.e. channel width & depth, water width & depth, discharge, surface & bed velocity, bed gradient, bedload size. Familiarity with modern e-measurement acceptable.
- Rivers 2 : Select appropriate and safe sites; quality indicators i.e. pH, turbidity (cloudiness), odour, colour, bacterial content (coliform), chemical composition (nitrates/nitrogen); basic procedures i.e. water extraction, sampling, testing kit contents, laboratory use.

- Coasts 1 : Basic equipment and procedures for measuring beachprofile elements i.e. length, height & slope, and for identifying & differentiating sediments according to type, shape, size ...
- Coasts 2 : Questionnaire design (i.e. question type, number ..) and its use (i.e. how ? where ? sampling ..). Focus is pressured (from either development, erosion or submergence) coastline management.
- Hazards 1: Familiar with basic meteorological instruments in either standardised conditions (i.e. Stevenson Screen; rain gauge; anemometer; wind vane) or non-standardised conditions to show "micro-climate" variability. Recording of readings. Appreciation of electronic data collection and recording acceptable.
- Hazards 2 : Questionnaire design and use as per Coasts 2. Focus is on hazard management either generically in a hazard-prone location or for one past/recent hazard event.

Section B

- Economic Activities and Energy 1 : Visits, interviews, questionnaire, mapwork, secondary sources .. Focus can be individual factory or service (e.g. bank, superstore ..), a dedicated area (i.e. business park, shopping mall ..) or factory/service locations within a town/city.
- Economic Activities and Energy 2 : Either questionnaire design and use as per Coasts 2 & Hazards 2 or internet/media/literature search. Focus is the renewables/non-renewables and energy efficiency issue.
- Ecosystems and Rural Environments 1 : Locate local pond, garden, hedgerow .. Observe and measure components e.g. species counts; temperature, soil and geology ... Identify connectives between components.
- Ecosystems and Rural Environments 2 : Visits, questionnaire, interview, secondary sources .. Focus on what produced, why produced, how produced, for whom and recent changes to these.
- Urban Environments 1 & 2 : Obvious candidate for joint fieldwork. Use land use key and environmental quality indicators scale to record land use and EQ scores on base maps along urban transect.

Please note that Section B opportunities require classroom follow-up after the data collection stage. It is strongly recommended that candidates engage in data presentation, analysis/concluding and evaluation with regard to these opportunities.