

## GCSE Geography Fieldwork

### Strand 2

#### **Selecting, measuring and recording data appropriate to the chosen enquiry**

There are four separate sections within this strand;

1. Difference between primary and secondary data.
2. Identification and selection of appropriate physical and human data.
3. Measuring and recording data using different sampling methods.
4. Description and justification of data collection methods.

#### ***1. Difference between primary and secondary data.***

The fieldwork investigations undertaken by candidates must each have at least one primary data collection method and candidates must know the difference between primary and secondary data.

- Primary data may be defined as: *data collected that are original and collected for the first time eg fieldwork data.*
- Secondary data may be defined as: *data collected by using already available sources eg published materials.*

Maps and photographs may be used as sources of secondary data to support the fieldwork enquiries.

#### ***2. Identification and selection of appropriate physical and human data.***

There are always several options in terms of the types of data that may be collected for any enquiry so the key word in the statement above is '*appropriate*'. Collecting inappropriate and/or unnecessary data is not helping the candidates.

The specific focus of the key question, aim or hypothesis will allow teachers and candidates to identify at least one geographical concept, theory or process applicable to the enquiry and this should be used to plan the data collection

methodology. For example, if the process identified is *longshore drift*, the primary data collection method must explicitly address this process.

### ***3. Measuring and recording data using different sampling methods.***

The enquiries for GCSE are small-scale investigations and it is not necessary for candidates to collect large amounts of data. Teaching time will be limited so candidates must not have too much material to process, present, interpret and evaluate. Candidates must have some understanding of what constitutes an acceptable sample size for their data collection method(s) with due consideration given to the accuracy of the data collected. Inevitably some form of sampling strategy will be required.

There are five main types of sampling:

*Biased sampling:* where data collected are deliberately skewed. For example, when measuring longshore drift at groynes, the location of biggest difference either side of the groyne is always chosen.

*Opportunity sampling:* this is where sampling opportunities are limited and you have to take what you can get. For example, when carrying out a longshore drift enquiry, you find that the tide is particularly high so you only have a short length of groyne along which measurements can be taken. Always check the times of the tides!

*Random sampling:* there is no bias involved here. Candidates could take a bag containing numbered pieces of card (numbers represent distance in metres) and select one at random to determine the distance along a groyne that measurements are taken.

*Stratified sampling:* this is where people or places are deliberately chosen according to the topic being investigated to achieve a particular pre-determined pattern of results.

*Systematic sampling:* this is a quick and easy method to use where a sample is taken at precise intervals, e.g. every 5 metres along a groyne.

Once the required data have been identified, methods of recording the results can be determined and candidates can have the opportunity to design their own data recording sheets.

#### **4. Description and justification of data collection methods.**

The assessment objectives covering the fieldwork requirements are AO3 Application (10% of the GCSE) and AO4 Skills (5% of the GCSE). Description of methodology is knowledge (AO1) and there are no marks allocated for this assessment objective.

- Candidates must know *how* to collect their fieldwork data so that they can do so effectively when in the field, but they cannot be set a question about this
- What is most important is that candidates understand *why* each aspect of their data collection methodology is being carried out and why that method, sample size, sampling technique, location used etc is a good/effective/appropriate approach to use.

This is AO3 because it goes beyond understanding (AO2) what each sampling strategy (for example) is, it puts a relative value on the one(s) used in relation to the other options. Why a strategy is selected and used and why others are discarded is about making decisions and judgements, AO3.

It is very important to make sure candidates have discussed the strengths and weaknesses of the options available to them and to be clear as to why particular strategies were selected.

Keith Bartlett

Senior Examiner/Consultant

Keith is a senior examiner, presenter and trainer for GCSE geography. He was a senior teacher at a school on the Jurassic coast and he has a PhD in the development of fieldwork skills.