

SUBJECT: Environmental Studies

UNIT: Year 8 – Infiltration



Stages of a Geographical Investigation:

1. **Hypothesis** - A statement that you will prove to be true or false through the fieldwork investigation.
2. **Methodology** - Describe and justify the way that the data was collected in your fieldwork
3. **Data collection** – Collecting data/evidence to prove or disprove the hypothesis
4. **Data presentation** – Using graphs, tables, maps to present the data collected.
5. **Data analysis** - The process of analysing data to identify geographic relationships, patterns, and trends.
6. **Conclusion** - Draw together the results of your fieldwork and answer the enquiry question.
7. **Evaluation** - considers the strengths and weaknesses of the data collection, along with possible improvements or extensions.

Sampling Strategies:

Random sampling - selecting a person to interview or site to measure, at random. Random sampling is unbiased as particular people or places are not specifically selected.

Systematic sampling - collecting data in an ordered or regular way, e.g. every 5 metres or every fifth person.

Stratified sampling - dividing sampling into groups, e.g. three sites from each section of coastline, or five people from each age range. It is possible to combine stratified sampling with random or systematic sampling:

Stratified random sampling - random samples are taken from within certain categories.

Stratified systematic sampling - regular samples are taken from within certain categories.

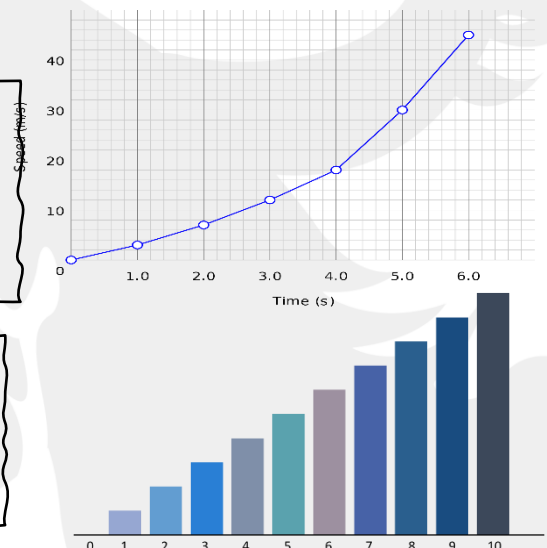
Data Presentation methods:

Line Graph

- ✓ Easy to construct and understand.
- ✓ Anomalies are easy to identify.
- ✗ Can be time consuming to construct.
- ✗ Often require additional information to be useful.

Bar Chart

- ✓ Easy to construct.
- ✓ Easy to understand.
- ✗ Should only be used with category data.
- ✗ Can be too simplistic.



Conclusions

- Go back to your aims, key questions or hypotheses
- In this section you bring the threads together and answer your hypotheses.

Evaluation

Be objective - Have you described every single trend, pattern and relationship from your data presentation and analysis?

Be critical - Are all your conclusions supported by the evidence?