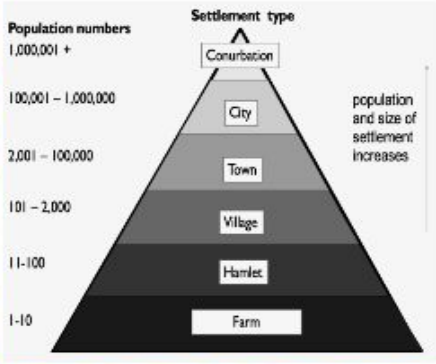
Settlement

1. WHAT IS A SETTLEMENT?

"A settlement is a place *where people live*"

The settlement hierarchy is a way of ordering settlements from their largest to smallest.



2. FUNCTIONS OF SETTLEMENTS

The **function** of a settlement refers to its main activities.

3. SITE AND SITUATION

SITE is the land which a settlement is built on.

SITUATION is where a settlement is located in relation to other surrounding, mainly human, features.

SOME SETTLEMENT ADVANTAGES.

BRIDGING POINT Where a river was shallow enough to be crossed or narrow enough to easily build a bridge

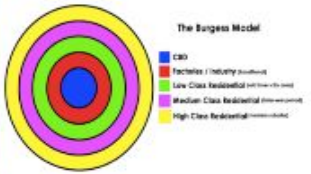
DRY POINT In especially wet areas, settlements were built on slightly raised land to avoid flooding

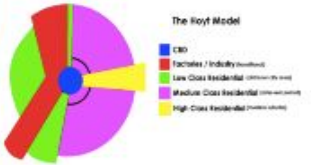
NODAL POINT Where natural routes meet, such as several valleys or at the confluence of two rivers

DEFENSIVE In order to protect themselves from attack, settlements were built within a river meander, with the river giving protection on three sides, eg. Shrewsbury, or on a hill with good views, eg. Edinburgh

WET POINT These settlements were built at a source of water in an otherwise dry area. For example, in lowland Britain, many settlements were built at springs at the foot of chalk escarpments

4. BURGESS AND HOYTE MODELS





CBD (CENTRAL BUSINESS DISTRICT) located at the centre of the city where rail and roads meet. Contains many commercial activities, shops, entertainment and business activities

INNER CITY mixed land-use containing small industries as well as high-density residential land-use – often characterised by terraced housing

INNER SUBURBS residential areas which developed during the 1920s/30s – often semi-detached houses with bay windows and front/back gardens

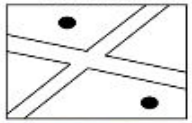
OUTER SUBURBS residential areas which grew up later as greater public transport and private car ownership allowed people to commute. These houses are often semi-detached/detached with larger gardens

RURAL-URBAN FRINGE this is right on the edge of towns and cities and is mainly low density, private housing (often larger detached properties); new industrial estates/business parks and facilities requiring larger open spaces such as golf courses

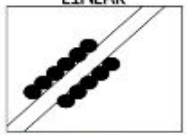
5. SETTLEMENT PATTERNS

Settlements can be different sizes, shapes and can have different functions. They also look different in different countries. This can be because of cultures, climate, wealth or history.

DISPERSED



LINEAR



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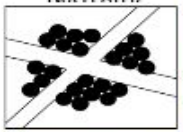


6. Deciding on Fieldwork Questions

Physical Fieldwork Questions

- How do river characteristics change downstream?
- How does longshore drift affect beach profiles?
- What impact is erosion having at _____?
- Is flood management effective at _____?
- Does tourism has a positive impact on _____?

7. Human Fieldwork Questions

- Has regeneration being successful in _____?
- How does environmental quality vary in _____?
- How is traffic managed in _____?
- Do science parks have a positive impact in _____?
- Is there economic inequality between _____ and _____?

7 Types of data

	Primary Data Data you collect yourself	Secondary Data Data collected by someone else
PHYS	• River depth / width / velocity / discharge • Pebble size / beach gradient / pebble roughness • Photographs	• Weather data • Erosion rates • OS maps – relief of the land / cliff locations
HUM	• Environmental quality survey • Questionnaires • Interviews • Traffic counts / Pedestrian counts • Photographs	• Census data • House price data • Crime statistics • OS map – locations of services / houses / roads / buildings

8. Types of data

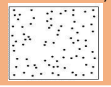
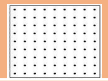
	Quantitative Data Data that is statistical / numbers	Qualitative Data Data that is descriptive
PHYS	• River depth / width / velocity / discharge • Pebble size / beach gradient • Weather data • Erosion rates	• Photographs • Pebble roughness • OS maps
HUM	• Environmental quality survey • Traffic counts • Pedestrian counts • House price data • Crime statistics	• Interviews • Questionnaires • OS maps • Photographs

9 Risk assessment

River currents	Risk of powerful water and risk of slipping over.	All wore wellies and were told not to go in deep parks of the river. Stay in groups.
Uneven ground	Danger of falling over due to uneven footpaths.	All wearing sensible footwear. Not running and walking carefully over large rocks.
Weather	Wet weather is dangerous due to slippery groynes etc. Hot weather also poses the risk of dehydration.	Students advised to bring plenty of water and sun cream if the weather forecast is hot. If the weather forecast is wet, students are advised to bring appropriate clothing and footwear.
Unfamiliar areas	Getting lost in new environments.	Staying in groups. Carrying a phone and a map in case you do get lost.
Traffic	Getting ran over by vehicles.	Use pedestrian crossings only when crossing the road.

What is the Geography of Shevington?

10 Sampling Strategies

	Advantages	Disadvantages
Random Sampling (Randomly choosing sites to collect data) 	• Not bias – each site has an equal chance of being picked. • Can easily be done with a large area	• Sites can get clustered together meaning data collection isn't representative • May lead to sites that are inaccessible
Systematic Sampling (picking sites every __ metres) 	• Gives a good representation of an area. • Easier to do than random sampling	• Can be time consuming • Can be bias as not all sites have an equal chance of being selected. • May lead to sites that are inaccessible
Stratified Sampling (picking sites by topic) 	• Flexible – fits with a lot of different enquiries • Gives a good comparison of different areas. (Eg. Upper, middle and lower course)	• Not suitable for something like a questionnaire • Could lead to bias from the person picking the sites

11 Key Terms

Enquiry Question	The question we were trying to answer by doing the fieldwork.
Data collection methods	The way in which we collected the data. EG. Measuring width, depth and velocity.
Data presentation methods	The type of graphs we used to present the data. EG. Bar, scatter, maps etc.
Accurate conclusions	When data is collected in the correct way that make what we find to be trustworthy.
Reliable conclusions	When there is enough data collected in an accurate way so we can trust the results.

12 Evaluating data collection methods

	Advantages	Disadvantages
River Data	Data is easy to compare downstream	Current can make collection inaccurate
Pebble data	See impacts of erosion.	Bias in selecting pebbles to measure
Questionnaire	Understand people's opinions	Timely to analyse People may lie
Env Quality Survey	Gain info on a wide variety of factors. Number is easy to compare scores.	Subjective – based on your opinion so can be bias.
Counts (Traffic / pedestrian)	Understand how busy / popular an area is.	Can easily miscount by mistake if an area is really busy

13. Improving data collection methods

Make it ACCURATE & RELIABLE (Enough data that we can trust what we find out)	Make it REPRESENTATIVE (Enquiry covers the whole area and not just a small part)
• Collect more data and generate an average – reduce the risk of anomalies. • Ask a wider variety of questions on a questionnaire. • If something is opinion based, consulting with other people to reduce bias. • Collect data at different times of day / year / weather conditions.	• Collect data at more sites to cover a larger area – reduces the risk of anomalies. • Ask a lots of different people for a questionnaire to cover all ages / genders / ethnicities etc. • Collect data at different times of day / year / weather conditions.

What is the Geography of Shevington?

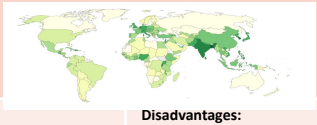
14. ANALYSING DATA

Mean	Add all data together and divide by the number of values.
Median	Put the data in numerical order and find the middle number.
Mode	Most common number.
Range	Highest number minus the smallest number.
Interquartile Range	Upper quartile value minus the lower quartile value. **More accurate than the range as it removes the extreme values.**

WHY?
+ Averages can remove the risk of anomalies skewing the data.
+ Easily see a general trend / what is most common in the data.
+ Easily compare changes between areas.

15. Choropleth Map

Uses different shades of colour / symbols to display different amounts.

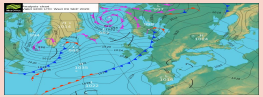


Advantages:
Easy to spot general trends.

Disadvantages:
Not useful for showing total values

16. Isoline map

Lines that join up values of the same value. (EG. Contour lines)

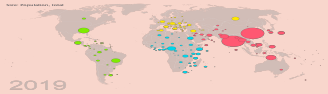


Advantages:
Can easily compare areas of equal value.

Disadvantages:
Can be difficult to read if lines are close together.

17. Dot Maps / Proportional Symbol Maps

Dot maps show 1 dot per value. Proportional symbols are circles / symbols drawn at different sizes to represent different values.

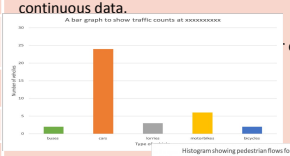


Advantages:
Easy to interpret general trends.

Disadvantages:
Clustering can make them hard to read.

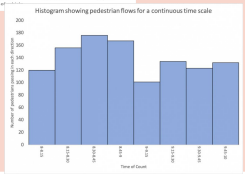
18. Bar Chart / Histograms

Bar charts show continuous data whereas histograms show continuous data.



chart

Histogram ->

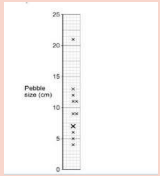


Advantages:
Can see a clear comparison / trend.

Disadvantages:
Does show the causes of trends.

19. Dispersion Graphs

Takes a set of data and allows you to see if the data is grouped together or very different.



Advantages:
Can easily spot anomalies in data.

Disadvantages:
Can be time consuming to analyse.

20. Flow Line / Desire Line Maps

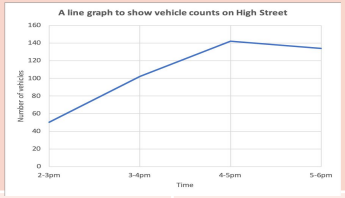
Flow lines show movement of something from one place to another. Desire lines shows a line to show how places are connected.

Advantages:
Shows connections between places.

Disadvantages:
Overlapping makes it hard to read.

21 Line Graph

Line graph shows continuous data to show changes over time. There is always a dependent (the variable that isn't changed by other variables EG. time) and an independent variable (the variable that is changed by other variables (EG. The number of cars on the road).

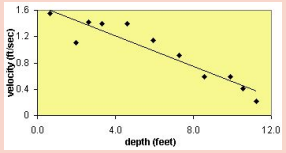


Advantages:
Can show multiple sets of data.

Disadvantages:
If too much data is plotted – hard to read.

22. Scatter Graphs

Investigated a link between 2 sets of data.

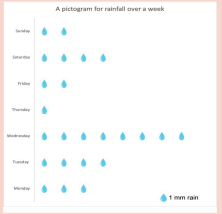


Advantages:
Can draw a LOBF to see if there is correlation.

Disadvantages:
Analysis of the correlation can be subjective.

23. Pictogram

A way of presenting data using symbols.

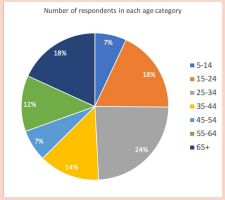


Advantages:
Easy to interpret / see trends.

Disadvantages:
Not suitable for continuous data.

24. Pie Chart

Divided circle useful for presenting a quantity that can be divided in to parts.

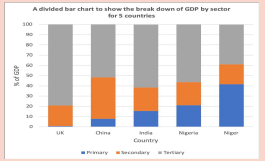


Advantages:
Good to display parts of a whole.

Disadvantages:
Can not be used to show trends.

25. Divided Bar Chart

Columns of bar charts are sub-divided based on the information being displayed.



Advantages:
Easy to see trends in large sets of data.

Disadvantages:
Requires additional explanation.