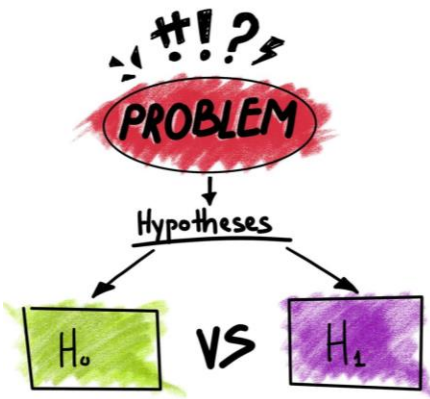
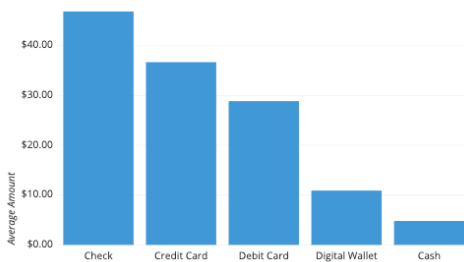


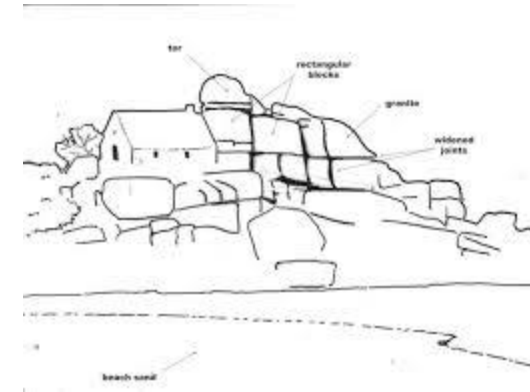
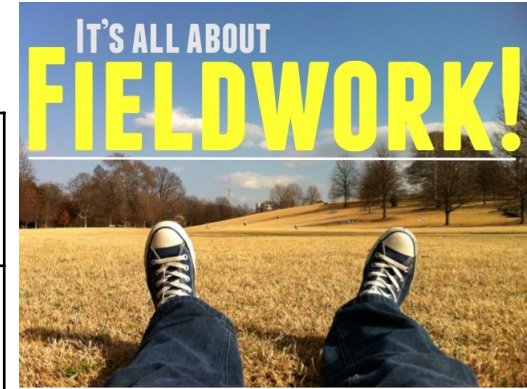
Local Environment Study Key Terms



THE ROBINSON ANEMOMETER.



Hypothesis	A statement that is proved correct or incorrect. As researchers, we don't mind if it is right or wrong, we just want to know which it is.
Enquiry	Asking questions and conducting research to answer an overarching question or hypothesis
Bias	Prejudice against something. For example, you always want your football team to win because you're bias towards them
Qualitative	Any data that involves someone's feelings or opinion
Quantitative	Any data that involves numbers
Annotations	A short description labelled onto something like a picture
Anemometer	A device that is used to measure wind speed using 4 spinning cups
Analysis	Detailed examination of something. In research, this is usually examining graphs
Conclusion	A summery at the end of a research project that aims to answer a research question or hypothesis
Evaluation	Looking back at something and deciding what went well and what could be improved.



Starting a Local Environment Study

Hypothesis and aims:

A hypothesis is a statement that we are going to try and prove correct or incorrect. As researchers, we don't mind if it is right or wrong, we just want to know which it is.

Examples we could use:

1. The microclimate will be the same at all locations.
2. More shielded locations will have less wind
3. South facing locations will have more sun and be hotter
4. Areas with less wind are more pleasant for pupils

Research Method 1: Observation

Description:

A researcher uses observation to look at an environment and record relevant information that might help prove or disprove the hypothesis.

Observation is often used to try to understand the relationship between two things. For example, how does the sun affect a plant. Observation must be without bias.

The best observers use all of their 5 senses.

Strengths

- Flexible and easy to do
- Find relationships directly

Weaknesses

- Time consuming
- It is difficult to record everything you see.

VISION HEARING SMELL TASTE TOUCH



Local Environment Study

Study

Study

Method 2: Sketch Maps

Description:

A sketch map allows you to record your observations. You can either draw the scene or take a picture. The most important thing about sketch maps is the labels you add. These will remind you later on about what you were thinking at the time of the observation. We will be using an App called 'Sketch Map'

Strengths

- These allow you to remember things that you were thinking when you were in the field

Weaknesses

- They can be time consuming and can sometimes be inaccurate

Method 3: Wind and Temperature

Description:

When you are collecting data, you will be taking wind speed readings using an anemometer and temperature readings using a thermostat. This will give us valuable quantitative data

Anemometer



Thermometer



Using Technology

Using Technology is a great way of making research easier. Below are some examples of great Apps to get going with.

Sketch Maps

Sketch Maps allow you to take a picture and add labels, images and annotations to that picture. This means you don't have to spend 20 minutes drawing a picture and can make direct comments onto a picture.

Word Cloud

Word cloud is another App that allows you to record your feelings about something. On this app, you stand somewhere and words that come to your mind you write down. It then creates something like what you can see below

Snap2Map

We won't use this app this time but it is great for research in a town or city. It instantly locates your picture on a map so you can remember where you took different images.



Presentation method 1: Bar chart

Strengths

Very clearly shows which opinion is most dominant. Easy to make comparisons between questions.

Weaknesses

May not show where different sites are. You can compare different sites, but you won't know where they are located on a map.

Alternative presentation techniques

Pie charts to show percentage of respondents with each differing opinion.



Presentation method 2: proportional symbol map

Strengths

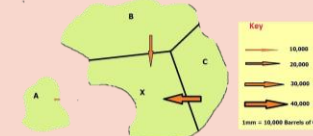
Clearly shows the differences between different areas with different sized arrows.

Weakness

Can be difficult to draw and they need to be highly accurate to be useful.

Alternative presentation techniques

Line graph can also show the difference between different sites.



Conclusion

Our conclusion will be written at the end of the research. This is a summary of what we have done in the study and will either find the hypothesis correct or incorrect.

The conclusion is very important as it sums up all of your research collection and analysis.

Evaluation



This is a very important, if not the most important aspect of your research.

The evaluation is when you look back at your research project and decide what you did well and what you could improve on. For example, maybe you found that using a bar chart wasn't very useful but measuring the wind speed was very useful. This evaluation will allow you, or others, to complete the same study again - but better.

The Enquiry Process starts with 'Ask Questions'

