

Project plan

Project title: The very hungry caterpillar: the occurrence of butterflies in Abernyte.

Who (project team): Sarah, Chris, Lily, Alexander, and Albert.



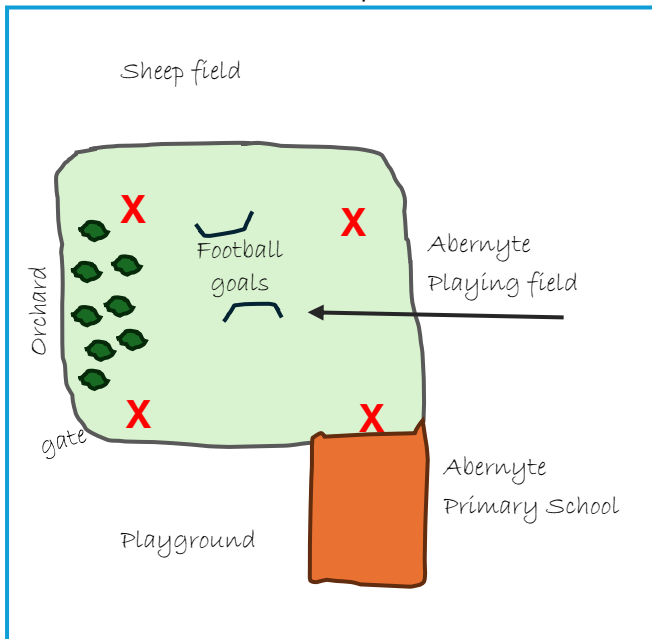
Question to investigate (hypothesis): Are there more butterflies in Abernyte at different times of the day? Hypothesis: there will be more butterflies in the afternoon as it is warmer.

Why is this topic important to study? Butterflies are important because they help pollinate flowers. This helps food like apples grow, that humans eat. They are an important part of the food web as they feed birds, bats, and other animals. They are also pretty, and make people happy when they see them.



Where are you going to look at?

You could draw a labelled map or sketch.



How are you going answer your question (methodology)?

What are you going to measure? How? When? For how long? Write up a step by step guide on the back of this sheet.

The number of butterflies in 30 min. Each person makes a tally mark each time they see a butterfly. At different times of the day (10am, 12, 2pm). Also record butterfly type/description.

Where will you collect measurements from?

You could add this to the sketch as X
Near plants.

What else could you measure that might impact the results? The surrounding plants e.g. trees, lots of flowers. The weather - sunny, cloudy, rainy?



What equipment/resources will you need? Notepad and pencils.

Hints:

- For the title, come up with a fun but informative title for your study. If you're stuck think about your project question.
- Project team is the names of each pupil in the group.
- For the hypothesis: think about what do we want to find out? A hypothesis is a scientific guess of what we think may happen, based on information we have read. It's meant to be simple - for example an increase in one thing will cause an increase in another. You can also say why you think this will happen. Keep it very simple and make sure you can measure it – for example it is interesting to think about why the Earth rotates around the sun and causes seasons, but this is tricky to measure.
- Importance information should be provided in the information sheet - but encourage the pupils to put it in their own words (i.e. don't just copy). Pupils are also welcome to look on the internet for more information. This should answer should have 2 - 4 sentences.
- For where, encourage the pupils to draw the area they will investigate. This could be the playground of the school, a playing field, or a nearby park. Labels are also useful. The map could be improved with a north arrow, scale (involves measurements so could be tricky), and a legend.
- The methodology is one of the most important parts. There are questions to get you thinking about the methodology - what you are going to do. There should be hints to this in the information sheets, and make sure to explore the links. It's a good idea to write a step by step guide to the methodology on the back of this worksheet.
- Think about where need to measure e.g. butterflies like flowers so measure nearby flowers. Show this on your sketch.
- Impacting factors are usually discussed in the info sheet. They are often other environmental factors e.g. weather (rain, sun etc.) or human impacts.
- For the equipment list - depending on the topic this could be as simple as a notebook and pencils. But could also be more complicated.