

Biodiversity Study

- Key Stage 2



Overview

The purpose of the Biodiversity Study is for pupils to conduct a survey, using tally charts, of the wildlife on a local site (within their school grounds). This will look at animal and plant life. This pack also includes follow up questions and ideas that a teacher can use with the pupils.

Goals

- Pupils to recognise and name local species of animal and plant life. They will record insect, mammal, plant and bird life in a tally chart (with photographs to aid recognition). This process of recording will help children to remember the names of local wildlife; and it is a chance to practise careful and accurate recording.
- Pupils to explore and understand that a range of wildlife can be found in one habitat.
- Pupils to practise the accurate collection of data onto a tally chart. In the final column of the tally chart additional notes could also be taken to meet a focused scientific question (for example: Where was the species seen?)
- Pupils can classify their findings using given categories or their own. They can decide on similarities and differences and then sort into basic groups. These can then be sub-divided into smaller, more specific categories based on specific characteristics.
- This is an opportunity for a detailed scientific report to be drawn up afterwards with the pupils drawing conclusions from their results.

KS2 - Years 3-6

Science

Maths

English

ICT

Materials & Resources

- Clipboards
- Pencils
- Magnifying jar or magnifying glass
- Pooters
- iPad/Camera
- Biodiversity Tally charts for insects, birds/mammals & plants

National Curriculum Links

Science

Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

Reporting and presenting findings from enquiries.

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro- organisms, plants and animals

Give reasons for classifying plants and animals based on specific characteristics.

ICT

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

Maths

Complete, read and interpret information in tables, including timetables. (They begin to decide which representations of data are most appropriate and why.)

English

Select the appropriate form and using other similar writing as models for their own

Before the Study

- Hold a brief discussion to find out what the children already know. What sort of wildlife would they expect to find in an empty field? What do they think encourages insect/plant/mammal/bird life? Alternatively what might discourage it?
- Explain the term biodiversity – a term which describes the variety of plants and animals in their natural environment.
- Do they know many of the names of the creatures that they will be searching for?
- Decide how long pupils will be outside carrying out their wildlife survey. Children should be encouraged to note the time of year, the location and the weather. This will mean that if they are going to repeat it in the future, it will need to be the same amount of time, in order to be a fair test.
- Encourage pupils to think about where they might look in the school grounds, for example under any large stones or in the earth might be a good place to sport an earthworm. This will aid discoveries and discussions on habitat.
- Discuss how the children should treat any wildlife they find as they need to learn to respect their local environment.

During the Study

- Decide how long pupils will be outside carrying out their wildlife survey.
- Children complete the tally chart on 3 separate sheets, recording plants, insects, mammals and birds.
- Children could take pictures of their findings, to support their survey.

After the Study

- Using photographs they have taken, the children can group the wildlife deciding on their own categories. State how categories were chosen.
- Write a report considering how diverse the wildlife is within the school location. If it is not very diverse, what can be done to encourage this? Would the children expect to see more wildlife if they repeated the survey a different time of year? Children write a scientific conclusion detailing what their thoughts are on the impact of humans on the school's biodiversity.
- The 'yes/no' game: children can identify what sort of creature you are talking about by only asking questions which can be answered yes or no. They must use scientific language when asking questions, for example: wings, habitat, and prey.
- Children can use a simple computer program to produce a yes/no tree diagram to categorise organisms which live around them.
- Having carried out the initial investigation children could use this as a starting point to plan follow up investigations – posing questions themselves and then investigating the answers, for example: where are most small insects found? Does the weather affect collecting insects?

Notes

- Pupils must wash their hands after touching any wildlife.
- The blank spaces at the bottom of the tally chart are for any additional wildlife sighting.