

AS2 - Biodiversity of the School Grounds

In this investigation you will undertake a study of the biodiversity of your school grounds.

Syllabus references

Outcomes

Core Content: 4.10 a) describe some adaptations of living things to factors in their environment

Skills: 4.14 a) follow planned procedure when performing an investigation

Time: 40 minutes

You will need

a pen, pencil and ruler
map of the school
metre rule
tape measure

Instructions

1. On your school map mark
 - Areas of hard surface (Cement, bitumen, pavers etc)
 - Areas of grass
 - Areas of garden
 - Any areas of bushland
 - Large trees
2. Find the names of as many plant species in your school grounds as you can (see plant identification books from this kit or your school library).
 - a) Which are local native plants? (see table 1 of Vegetation Communities Information Sheet)
 - b) Which are non-local native plants?
 - c) Which are non native or introduced species?
3. Comment on the mix of native versus introduced species.
What does this mean for native animals?
4. Trees provide important habitat for many species of birds and some mammals. How many large trees are in your school grounds?
5. Use the technique below to measure the height of some of the larger trees in your school grounds.
Place a metre rule vertically on the ground in sunlight.
Use a tape measure to measure the length of the shadow cast by the metre rule.
Use a tape measure to measure the length of the shadow cast by the tree.
Can you work out how to calculate the height of the tree?
If not use the following formula:

$$\text{Height of Tree} = \frac{\text{Length of tree shadow}}{\text{Length of metre rule shadow}}$$

6. Make a herbarium of plants found in the school yard.
 - a. Use the weed guide to identify any weeds collected during the walk and use plants guide to identify native species.
 - b. Collect small specimens of plants (leaves, flowers) for drying and pressing.
 - c. Place the plants between a few sheets of newspaper and cover with heavy books.
 - d. Change the newspaper regularly to prevent the plant going mouldy.
 - e. Once the plants are dry and pressed, they can be stored in plastic sleeves or laminated for preservation.
 - f. Research the features of the plants collected during the walk and include the background information within the herbarium.
 - g. Label each plant with common name, scientific name, location found and background information.

Links and Resources

UPRC Education Resource Kit:

- ◆ C1 Biodiversity Overview
- ◆ C10 Vegetation Communities
- ◆ E1 Biodiversity
- ◆ E8 Weeds