

# Easy ecology activities for school and home...

Summer is the time of year where Nature is in full bloom. It's a great opportunity to step outside and examine the world as it unfolds. To help you focus your attention, we have some easy ecology practicals that can be carried out in the school grounds, in any green area, or even in a garden. (Though, of course, please observe any social distancing requirements that may still be in place)

## 1. Quick quadrating

Quadrats are square frames that are for observing plant species in a selected area. For a snapshot of plant ecology, large quadrats (typically 50cm x 50cm) can be thrown onto an area. Static quadrats can be set up in a specific location for longer term studies e.g. monitoring changes in biodiversity over time.



Quadrat made from green garden mesh fencing (50cm x 50cm)



Static quadrat made from string and sticks (25cm x 25cm)

Quadrats can be used in a number of ways to observe plant ecology:

1. Population size - number of individual plants or percentage cover of a known plant species e.g. daisy or dandelion
2. Biodiversity – number of different plant species e.g. count each different leaf type as one species
3. Biodiversity - choose 10 common plants found in the area and count how many of each are present - either at different locations (using quadrats), or the change in biodiversity over time (using static quadrats).

## Identifying species

Identifying plants, animals and fungi in the environment can be tricky. There are plenty of apps available that help to identify organisms in real-time or from photos. Some require you to sift through images until you can confirm the species, others will identify to the closest taxonomical level (e.g. family or genus).

The most popular app to download is SEEK (created by the *iNaturalist* team). SEEK is suitable for all ages. It contains a bank of common plants and animals in your area, and highlights species to look out for. In addition, the app offers challenges for you to earn badges. For example, look for and photograph specific species in a set habitat.

*iNaturalist* is a more advanced app where you take photos, share, and verify observations with other users. The data collected on *iNaturalist* is open for use by global agencies and research projects.

We would like to thank the Education team at the Royal Holloway University of London for some of their ideas. For further information on projects they have set up visit the *Schools' Biodiversity project*, <https://schools-biodiversityproject.com/>, and *My Nature Watch*, <https://mynaturewatch.net/>.