

# What's in the Biodiversity Day Action Kit?

The field activities (F) are mostly designed as half-hour slots in the teaching day, including organisation time. Each page is divided into two columns providing instructions and questions to present to pupils, alongside preparation and background notes.

The information pages (I) are intended for both pupils and teachers, to be used when appropriate.

**About Biodiversity (I):** This page can be used as a stand-alone introduction to the concept of biodiversity as the variation between and amongst species. Although it uses some unfamiliar words, it can be the basis for developing a deeper knowledge of the breadth of that concept. It can be handed out as a homework activity sheet with related questions or investigations, depending on the age and ability of the pupils. It refers to the practical, ethical and aesthetic aspects of biodiversity (amongst other things) and so could be used as the basis for a PSHE discussion.

**Living things all around us (I):** This is a letter addressed to Young Scientists applicable to younger pupils, which may need modifying for older pupils. It includes an outline of how to prepare for backyard biodiversity investigations and mini-biographies of Rachel Carson and Charles Darwin.

**Dawn to Dusk (F):** A short diary of living things in a south London back street starting early on a late summer's morning and ending in the evening. It could be a suitable template for a residential field trip activity.

**Microwalk (F):** The activity focuses pupils on the diversity of life at their feet. The language of this page is directed at the pupil. This activity could be done on the school playing field or lawn (Teachers may wish to provide additional material for more confident pupils.) This activity could be used as an introduction to observation, habitats and feeding relationships.

**Microdig (F):** The instructions for this activity may need upgrading for many pupils, but could be used without editing for the less able. The activity focuses on looking for invertebrates in leaf litter and other dark and damp places. It forms a starter activity for studying ecological relationships.

**Microchasms (F):** This simple observational activity focuses on microhabitats in various types of location, from concrete yards to seashore boulders. It specifically mentions mosses and ferns as organisms to look for. Teachers could add questions about the microclimate provided in such habitats. The page also includes a long quotation about plant colonisation of wastelands, which can be used as a model for discussing environmental issues

**Macrochasms (F):** Here is a more exploratory activity for after schools clubs likely to be working outside in the school grounds. It could also form the basis of a field trip activity.

**Fields of Grass (F):** The activity involves using quadrats to collect data and is suitable for work on the school playing field, or during a residential or day trip to a rural location.

**Wet Places (F):** After school clubs could find this a suitable activity. It briefly introduces ponds and other freshwater habitats as places for observing living plants, animals and microscopic organisms.

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**More Wet Places (F):** This covers brief instructions and ideas for an introductory exploration of the range of habitats found on the seashore. The environmental factors leading to adaptation are mentioned and the concept could be developed further. Food and feeding relationships and competition for living space can be observed through this activity.

**Spiders at Home:** The huge diversity of just one group of invertebrates will become apparent through the range of activities on this page. It involves using fieldwork techniques; looking at ecological relationships; and provide opportunities for using keys. An Internet resource is quoted.

**Snails at Home:** Variation, adaptation and the collection of numerical data are included in this activity. Some scientific names are listed. This page is suitable for younger pupils, but could be upgraded. It could form the basis for a homework investigation.

**Woodland Walk:** This page concentrates on plant life. It can be used either as an overview activity to prepare for an in depth investigation, or as an activity to introduce plant classification. It gives brief descriptions of the different types of woodland, and suggests the sort of vegetation to be found in a wood. This activity requires pupils to record specimens in a methodical way.

**Under the Tree Roof:** This is suitable for PSHE work with pupils on a residential field trip. It suggests that pupils become involved in the spiritual atmosphere of a wood as well as its biological features.

**Places to Live:** This is about the range of British habitats and is a useful starter text as an introduction to studying the environment and feeding relationships.

**Equipment:** The list is fairly exhaustive and pupils are encouraged to select from it the equipment they require for each activity. Suggestions for how to make simple equipment are included on the second page, offering a useful wet day activity for after school clubs.

**Telling everyone what's out there:** There are two sections to this page.

On the left is a variety of suggestions for celebrating the variety of life on Backyard Biodiversity Day. It is appropriate for primary pupils, but the ideas can be adapted for older pupils, especially as cross-curricular work involving English, ICT or PSHE.

On the right, the page invites pupils to take part in an online survey of ten organisms - both plant and animal species. This survey involves both biological fieldwork and the use of ICT. Pupils should be aware that entering a nil result can be of biological interest. The organisms chosen are easily recognised and reasonably widespread.

**Safety notes:** For teachers and club leaders.

**References:** The list includes background reading for teachers and more sophisticated Year 9 pupils, as well as suitable field guides and keys. References to the quotations are also given.

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## Further Activities and Investigations:

### ***About Investigating the Environment*** by Dawn Sanders

Ecological investigations involve the children in a variety of procedures:

- Formulating questions
- Developing observation skills
- Noticing patterns
- Considering recorded observations
- Processing ideas
- Thinking creatively
- Different methods of measuring and collecting data.

These activities will enable children to build a repertoire of experiences that they can apply to other areas of science study.

*Why are slugs more active at night?* (As protection from predators and because nights are often cooler and moister.)

*Why do they produce slime?* (Slugs produce three types of slime – one type under the body to aid movement, one along the back to repel birds and other predators and one thread-like type to enable 'bungee-style' movement from one layer of the leaf canopy to another to avoid predators!

The following contexts have been written for Biodiversity Bites, a follow-up publication that is still being developed.

**Spiders**

**Daisies**

**Dandelions**

**Earthworms**

**Snails**

Teachers are invited to try out the investigations and to report back to:

ABE, c/o Education Department, Chelsea Physic Garden, 66 Royal Hospital Road, London SW3 4HS. Email: [cpged@cpgarden.demon.co.uk](mailto:cpged@cpgarden.demon.co.uk)