

Adaptations and Habitats

Using invertebrates and plants collected by pupils from the stream and the pond, we look at the features that enable them to survive in water, and how these differ from terrestrial plants and animals.

Population Dynamics

Invertebrates collected by pupils from the pond are identified and numbers of individuals recorded. The animals are then studied to find evidence of being carnivores herbivores or omnivores. Reasons for the variation of numbers of individual species are discussed, followed by explanations of energy flow and the formation of population pyramids. The session can finish with games to reinforce the principles of food chains, webs and energy flow.

Comparing Aquatic Habitats

Samples of pond water are collected to be tested. Experiments are carried out to find the pH, temperature and turbidity of the water. Light intensity and surface tension are also measured. This is followed by pond dipping and identifying the plants and animals that live there. The activities are then repeated for the stream habitat, followed by discussions as to why differences occur between the 2 habitats.

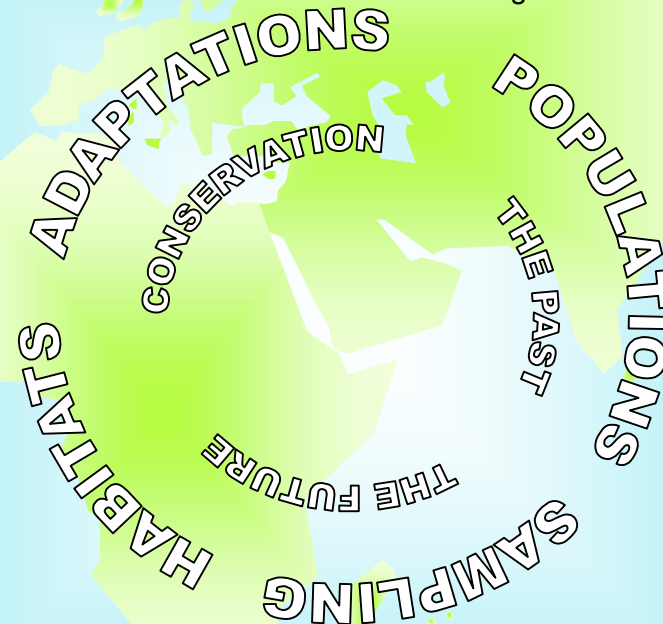
Discovery Trail

A look at various habitats and the creatures that live there. By pond dipping and using pitfall traps, sweep nets, shaking of trees and other surveying techniques we can reveal the variety of unseen life in meadows, woods, rivers and streams. The day can be treated as a chance to explore or various topics such as biodiversity, human effects, loss of habitat, and food chains can be brought in at the discretion of the teacher.



Trees of Life

The session starts with an overview of the uses of trees. This is followed by identification of tree species (by examining their leaves) using a branching key. Invertebrates can then be collected from different tree species and comparisons of these can be made. Mathematical estimates are then made about the heights and ages of individual trees, with estimates checked at the end of the session using a clinometer.

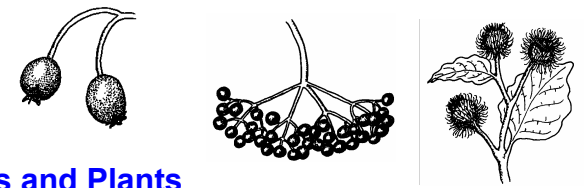


Management for Conservation

A look at various habitats including farmland, rivers, ponds and woodland to see what features help and what hinders the survival of wildlife in the long term. Includes a role-play deciding the future of the site if requested.

Wild Flower Sampling

Using quadrats along a transect of wild flower meadow to determine occurrence and abundance of plant species. The transects can incorporate a path, which highlights issues of trampling. Alternatively, comparisons of long and short grass swards can be made by sampling with quadrats and identifying the plants found.



Soils and Plants

A day investigating the formation of soils, including looking at how soils differ within a very small distance depending on vegetation and other effects. It introduces nutrient cycling, roles of animals in forming soils (e.g. worms, moles, and woodlice) and the adaptations they have to live in the underworld. Depending on the stage of the curriculum pupils have reached, the basic theory of succession can also be explored.

Time Traveller

Students learn about the various ways plants were used in the past including dyes, making fire, basket weaving, shelters and forest foods. Activities are dependant on the season.

Natures Art

A range of activities to explore nature through art. The session includes creating sculptures and photographing them, inspired by the work of environmental artist, Andy Goldsworthy. Collages using natural materials can be made, and also shadow pictures and observational drawings.

Sustainable Living

Investigating the issues of sustainability surrounding waste, water, energy and global warming with games and activities. (This topic is usually delivered at school).

