

# Food chains and webs

**These activities are designed to help children learn about the interaction of living things and their interdependence in order to survive.**

## **Making a Food Web**

Survey a habitat, identify species as closely as possible and find out what they eat through books. A representation of the food web involving the species found can be constructed in a variety of ways: simply in writing; pasted together using cut-out illustrations or the pupils' own drawing/paintings of species; pictures suspended by thread at different levels to form a mobile, with the thread representing links; painted as a mural; formed from models of species found. Food webs can be kept simple or developed further to show something of their true complexity. Complications include the following: animals can move between trophic levels, e.g. omnivores (the position of humans within the web is an interesting question); adults and young may feed very differently (sometimes adults preying on species which preyed on them when young); decomposer chains need to be shown to complete the picture; major producers/primary consumers may be invisible plankton in some habitats.

## **Pass the Leaf**

The story starts with a leaf. The first child tells of how an animal of his or her choice found and ate such a leaf, and then passes the leaf to the second child. The second child explains how that animal was eaten by another, died and was decomposed, or ate something else. The next child continues with another connection in the food web, and so on. In this way feeding connections and cycling of materials may be explored.

## **People in Chains**

Ask pupils to list all of the foods they eat in one day and to work out the food chains to which they belong.

## **Recipe for a Habitat**

Ask the children to design a perfect habitat. They can draw the trees, rivers, clouds, rocks, soil etc., as well as some of the species living within them, but they should also list the unseen species and environmental factors needed to make the ecosystem work. Discuss with them whether their habitat designs are sustainable. For example, have they included representatives of every level in the food web, including decomposers?

### **The Old Lady and the Fly**

"I know an old lady who swallowed a fly  
I don't know why she swallowed a fly  
Perhaps she'll die."

This old song features a food chain which becomes strange after a while: fly> spider> bird> cat> dog> goat> cow> horse. Ask your pupils to come up with more biologically sensible verses for food chains in various habitats.

### **Webbing Game**

Stand pupils in a circle with the teacher at the centre. The teacher asks one pupil to name a species found in the habitat under study. That pupil holds onto the end of a ball of string or wool, which is then passed backward and forward between pupils as each volunteers to represent a species which eats, or is eaten by, the last named. In this way every pupil becomes connected with the string. Some species may be mentioned more than once, in which case the web becomes more complex. One species in the web should then be represented as being in decline by asking the appropriate pupil to sit down. Each pupil who feels a tug on the string as a result should also sit down, and so on; every pupil should end up sitting, as they are all connected. Making sure that one of the species in the web is a human will help demonstrate that our impact on other species affects ourselves as well.