

Decay

These activities teach children about the importance of different organisms in the processes of decay and decomposition

Biodegradable?

Bury a range of manufactured materials in topsoil, mark their positions and retrieve for examination each month. Compare biodegradable cups with their polystyrene and plastic counterparts and compare different sorts of food wrappings, including paper, polythene and cellophane.

Compost Heap

Construct a compost heap, or perhaps more than one for comparison. The design must allow for air and moisture, which are essential to rotting. Various designs might be tried to develop the most successful one for rapid decomposition. Possible ways of speeding up decay include the following: raising the materials above the ground with a layer of bricks; adding soil between layers; watering if necessary; covering to avoid water logging.

Disappearing Leaves (soil or pond)

Cut a vertical section through some soil with a layer of leaf litter on top, and see how the leaves become gradually more fragmented and unrecognisable with depth. Attempt to do the same with pond detritus.

Fungal Foray

Look for examples of fungi growing on different types of dead material in any habitat studied. Observe fungal development within dead material in a vivarium.

Making a Wormery

Use a sweet jar or a two litre plastic lemonade bottle with its top section removed. Put a series of 3cm layers of moist soil into the container, each separated by a thin layer of sand. Place four earthworms in the wormery and cover with leaves. A piece cut from a pair of tights, held on by a rubber band, will make a suitable cover for the top. Cover the sides with black paper. Keep the soil moist but not wet. Put the wormery in a cool place and look for evidence of activity weekly.

Rates of Decomposition

Place 10 leaf squares of equal size into each of a variety of bags of different mesh size: e.g. hair net, net curtain, nylon tights. Bury the bags in soil and retrieve each month for examination. Estimate the percentage area of

decomposition for each square and note the number and type of any creatures found, as well as the presence or absence of fungi. Deductions can be made from this on the importance of various decomposers. The same experiment can be developed in an experimental plot to show the effects of various agricultural chemicals on soil organisms.

Rotters

Every habitat contains materials which are being decomposed. Obvious examples include: animal droppings; compost heaps; leaf litter; dead wood; pond detritus. Any of these can be examined to determine which animals or other organisms are decomposing them.

Rotting Away

Set up a vivarium. Include within it some organic material and some invertebrates found in or near it. Suitable materials might include dead wood, leaf litter, or animals' droppings. See what can be learned about the community of decomposers from observing the vivarium.

Tullgren Funnel

Shine a desk lamp down onto a funnel filled with leaf litter and placed over a jar. Line the jar with damp kitchen towel and cover the outside of it with black paper. The creatures living in the leaf litter will move away from the heat and light and fall into the jar.