

Compost Cafe

This lesson covers how compost is made, what it can be made from and how recycling waste can provide us with a useful end product.

Objectives

- Learn how compost is made.
- Understand the consequences of sending organic waste to landfill.

Lesson Outline

Discussion:	Show the children a sample of compost. Ask them to look at it and touch it. Explain that composting is nature's way of recycling – turning organic waste into a useful product.
Activity/discussion:	Recruit a 'Compost Cook' to demonstrate the composting process. Give the cook a bowl – representing a plastic compost bin, wooden slatted compost heap or chicken wire container.
	Ask the cook to add organic matter - vegetable and fruit peelings, grass clippings (green waste – quick to rot, adds moisture) and then paper, card, sawdust from vegetarian pets, twiggy garden waste (brown waste – slow to rot, adds carbon).
	Discuss the importance of having a 'mix' of both types of waste. Briefly explain what can't be composted (cooked food, meat, fish, diseased plants, plastic, glass, metal etc).
	Air – This can be captured in scrunched up card/newspaper.
	Water – Green waste should have added enough moisture but if not the heap can be 'watered'.
	Heat & Sunshine – Container should be located in a sunny spot, sheltered from the wind. Compost bins are often made of black plastic so they get very hot quickly.
	Micro organisms (mainly bacteria and fungi) – A teaspoon of compost contains more micro-organisms than there are humans on the planet! If the conditions in the compost are good their numbers can double every hour. As the micro-organisms respire, feed and reproduce, more heat is produced.

Activity/discussion continued:	Minibeasts – These are not strictly needed (organic matter will decompose anyway) but they will speed up the composting process. Minibeasts include springtails, spiders, ants, beetles, centipedes, woodlice, millipedes, slugs, snails and worms.
	Mix the ‘ingredients’ together (encourages air circulation) and wait 9 months to a year (use a toy alarm clock to demonstrate) – stirring occasionally.
	Compost heaps attract a whole range of wildlife to the garden – slow worms and grass snakes may sleep there, birds to eat the worms and slugs. Finished product is full of nutrients (great for growing!) and diverts organic waste from landfill where it creates methane gas and leachate (a liquid pollutant).
Group/follow up work:	<u>Composting timeline.</u> Children work in groups to sort picture cards into what can and can’t be composted. Then put the things that can be composted in order of how quickly they will rot. To include: juice cartons, plastic bags, cooked food leftovers, diseased weeds (all non compostable) lettuce (days), tomato (a week), coffee grounds (2 months), kitchen towel (2 – 3 months if small pieces and damp), used tea bags (4 months, tea breaks down quicker than paper), cardboard (6 months, needs to be ripped up and damp), hedge clippings (may take a couple of years because they are woody). Remind children that items that rot give off methane in landfill sites.
	Children can make <u>mini composters.</u> Use 2 litre soft drinks bottles, layer with organic matter (uncooked fruit and vegetable peelings, grass, leaves, twigs), soil, sand, shredded paper, torn egg boxes. These can be converted into wormeries by making drainage holes in the bottom and adding a few earth worms.

Resources you will need:

- ‘Compost Cook’ – compost sample, apron, bowl, organic matter, watering can, sunshine picture, plastic mini beasts, alarm clock, mini gardening fork and landfill poster.
- Composting timeline – picture cards.
- Mini composters and worms – 2 litre plastic bottles, prepared by cutting just above the label and creating drainage holes in the bottom (1 per group), bucket of raw fruit/veg waste cut into small pieces, shredded paper, egg boxes* check for allergies or other cardboard torn into small pieces, compost.