

Setting up Composting Systems

Time of Year

This can be done at any time of the year but makes a good outdoor project in winter.

Cross Curriculum Relevance

SESE:	Living Things, Environmental Awareness and care, Exploring/research, web of life.
Visual Art:	Making signs/drawings / photographs.
PE:	Turning the compost heap / active learning.
SPHE:	Myself & the wider world, active citizenship.
Informal Curriculum:	Green Schools Programme, Discover Primary Science.



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Resources needed

Compost bin, organic waste, activator (seaweed, a bucket of old compost, manure, nettles or comfrey), wet paper or cardboard, camera.

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Top tips

- Have a number of jobs for the children to do in small groups, e.g. collect leaves; grass; food; cardboard; paper; take photos, etc.
- Have more than one type of composting system: plastic bins for food; box for grass & garden waste; rough pile for twigs and wood.
- Most schools will need more than one food waste bin; one can be rested to compost while another is started.
- If the bin is too dry add more green ingredients, water or liquid feed.
- If the bin is too wet, add more brown ingredients.
- Check there are worms in your bin – if you don't find any add some manure or a bucket of compost from another bin.
- Use a length of drainage pipe as an air tube to allow air up the middle of the plastic bin.
- Do not add diseased plants, or plants that have produced seed to your compost heap – they can be added to the rough piles.
- Use your homemade compost on your vegetables, fruit or flower gardens.

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Types of compost bin

There are as many types of composting bins as there are gardeners. The main thing to remember is that the school will need a number of food waste bins, as one can be rested to compost while another is started. Worms & bacteria do a lot of the work in all kinds of composters. Wormeries are compost bins that have to have worms added because they are closed systems. Earthworms are a different species from composting worms and will come & go from the open heaps.

- Wooden bin (open system) – is the cheapest bin, can be bought or homemade with pallets or slats of wood, good for garden waste/grass clippings.
- Plastic bin (semi-open) – available from the local council or a garden centre, good for food waste & paper/cardboard.
- Green Cone (closed system) – available from the local council or a garden centre, good for food waste including cooked food, and paper & cardboard.
- Rough heap (open system) – free and good for larger garden waste such as sticks, branches and grass clippings. Also great for encouraging wildlife.



Setting up Composting Systems contd.

Health & Safety

Take care when turning compost heaps. Always wash hands after handling compost. Please refer to the worksheet on Health & Safety for detailed information.

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Types of compost bin contd.

- The Pig Composter (closed system)– quite an expensive option, an insulated bin mounted on a frame, very fast composter suitable for all types of food waste.
- Wormery (closed system) can be made or bought, it will deal with all types of food waste using tiger worms (different to earthworms) to do the composting.

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Ideas for Research projects

Maths – measure temperature in the compost bin at different times of day/year. Estimate the speed that food waste becomes compost.

SESE – Identify mini beasts in the compost bin. Research the web of life in the compost bin. Make an indoor wormery. Research how to recycle grass clippings.

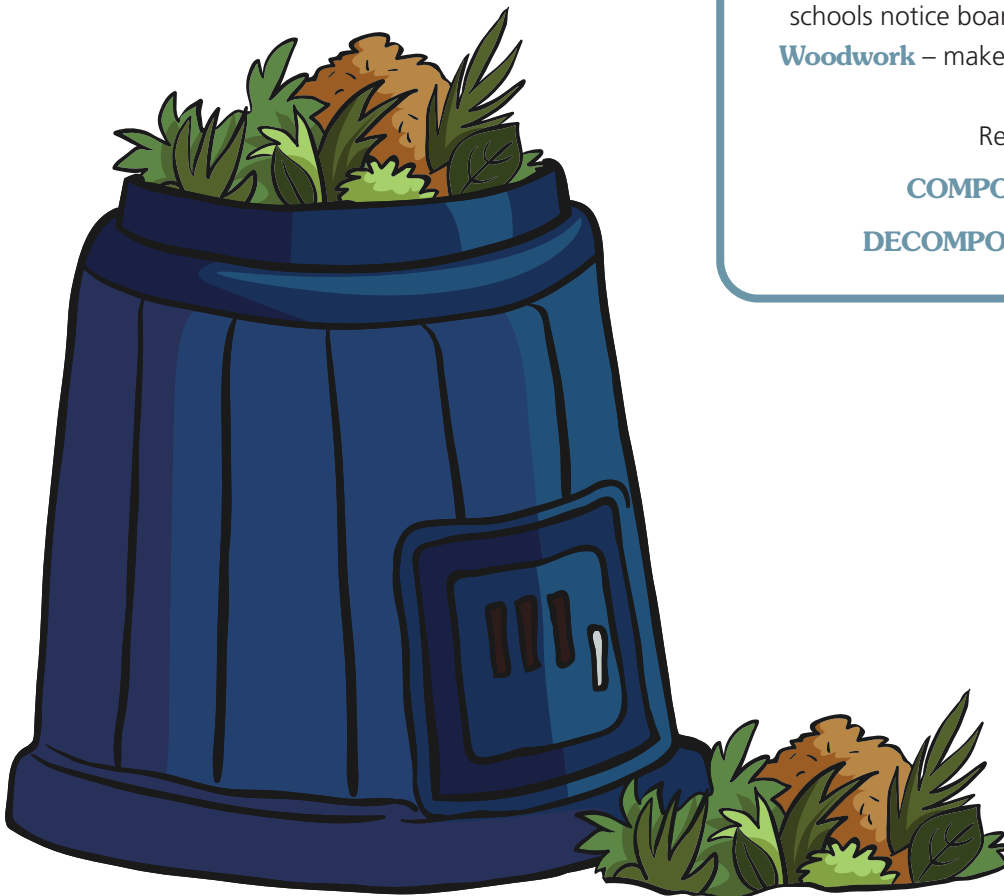
Local Heritage – How has composting changed throughout history – how did people deal with their organic waste in the past?

Arts – make a display for the garden or green schools notice board of composting in the school.

Woodwork – make a wooden slatted compost bin.

Research Words:

**COMPOST ACTIVATORS,
DECOMPOSE, 'GONE TO SEED'**



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Organic Gardening for Primary Schools
Setting up Composting Systems



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What do we do with grass clippings?

- Rake them into a pile and cover them over with carpet or black plastic for a year to get compost. Add small amounts to the compost heap.
 - Add some to the rough piles.
- Mulch around hedges/trees/fruit bushes.
- Mulch vegetable beds with cardboard and grass clip-pings.
- Mulch mow and let them feed the grass directly (see wildflowers/meadows/mowing sheet).

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What is composting?

Composting is the natural biochemical process of decay, it happens when bacteria, fungi, worms and other organisms break down organic waste.

A healthy compost bin needs 5 important ingredients:

- Air
- Water
- Brown ingredients
- Green ingredients
- Activator

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What to put in the compost

Include at least 50% green waste (nitrogen rich – can make the bin wet).

Green ingredients – e.g. grass clippings, weeds, plant waste, fruit and vegetable waste.

Brown ingredients – e.g. tea bags, paper, cardboard, twigs, straw and dead leaves.