



Teachers Resources - Waste & Recycling – Composting – Answers and suggestions

10-11 year olds - Activity 1- Different Ways to compost

Ask the children to think about the benefits of compost and food waste digestion. They could write about the benefits or draw them. Hint: Benefits

Environmental reasons:

- 1) reducing waste sent to landfill (compostable food waste)
- 2) nutrient rich food product for your garden that improves soil structure, maintains moisture levels, keeps PH balance in check and helps suppress plant disease
- 3) composting at home for a year can save global warming gases equivalent to all the CO₂ your kettle produces annually or your washing machine produces in 3 months

Financial reasons:

- 1) free fertiliser for your garden flowers beds and pots

10 to 11 year olds - Activity 2 – Composting 'v' landfill

The children should think about compost and food waste digestion and think about how this benefits the people of Charnwood/UK as opposed to everything going to landfill. Ask them to think about the rubbish that is diverted from landfill and how it may benefit the people of Charnwood/UK

Some of the items that can be composted rather than going to landfill:

Greens (nitrogen rich):

- 1) tea bags
- 2) grass cuttings
- 3) vegetable peelings
- 4) old flowers
- 5) fruit peelings and scraps
- 6) nettles
- 7) coffee grounds & filter paper
- 8) old bedding plants
- 9) young annual weeds
- 10) pond algae & seaweed (in moderation)

Browns (carbon rich):

- 1) egg shells
- 2) egg boxes
- 3) cereal boxes
- 4) corrugated cardboard packaging
- 5) newspaper
- 6) toilet & kitchen roll tubes
- 7) garden prunings
- 8) dry leaves, twigs & hedge clippings
- 9) straw & hay
- 10) wool
- 11) feathers
- 12) bedding from vegetarian pets
- 13) shredded confidential documents
- 14) pine needles & cones

You need a good and even mix of both greens and browns in your compost bin to give you the best result.



10 to 11 year olds - Activity 3 – Compost life cycle

Fill in the gaps in the compost life cycle.

Clue – What items might you put in your compost bin?

Some of the items that can be composted rather than going to landfill.

Green's (nitrogen rich):

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- 6) nettles
- 7) coffee grounds & filter paper
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- 9) straw & hay
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- 14) pine needles & cones

You need a good and even mix of both greens and browns in your compost bin to give you the best result.

Clue – What insects will help chew up all of the materials?

Insects:

- 1) Fruit flies
- 2) Slugs
- 3) Worms
- 4) Snails
- 5) Woodlice
- 6) Ants
- 7) Centipedes
- 8) Millipedes
- 9) Spiders
- 10) Earwigs
- 11) Beetles



Clue – What are the processes that happen inside the compost bin?

Compost is created by the natural breakdown of organic material. Organic material is derived from living material or material that was once living, such as plants and animals. Bacteria, fungi, insects and animals living in the soil all contribute to the breakdown of the material.

The breakdown of the material by the decomposers (fungi and bacteria) requires food, air, moisture and warmth.

Food – Ensure that there is a good balance of both green and brown materials (50/50 split).

Air – Allow air into your bin to aid composting. Scrunched up paper, cardboard etc creates air pockets. Stick a garden fork or broom into the compost and stir every few days.

Moisture – If you have the correct balance of greens and browns then you will have the correct amount of moisture. However if your compost is too dry, add some greens or if it is too wet add some browns. For a quick fix you could water with a watering can or leave the lid off to let the rain in.

Warmth – Microbes require warmth in order to thrive. Site the compost bin in partial sun with the lid on to ensure plenty of warmth.