

Composting

(Adapted from Turn Over a New Leaf activity)

OBJECTIVE

To increase the understanding of proper composting for replication at home.

MATERIALS

A plastic tub, soil from outdoors, organic material, gloves, spray bottle, thermometer

WHAT IS COMPOSTING?

Composting is a natural (biological) process during which organic materials, such as grass, leaves and selected kitchen wastes are broken down by microbes into a soil-like product. Decomposition occurs in a compost pile due to the addition of light, air and water. When compost is added to soil, it improves its texture and ability to hold water.

DEMONSTRATION

1. Use the plastic tub as a demonstration in the classroom.
2. Add to your plastic tub a bucket of soil from the outdoors. Gather organic material (see examples in the "Do Compost" list below)."

Do Compost:

Bark and wood chips
Egg and nutshells
Food Waste
Garden clippings
Grass and leaves
Hay and straw
Wood ashes

Do Not Home Compost:

Bones
Dairy products
Meat and fish
Plastic or synthetic fibers
Poultry
Vegetable oils/fats

3. Use the right recipe to start your pile. The ratio should be "one part green to two parts brown." Material high in nitrogen (green material) includes food waste, egg and nut shells and grass clippings. Material high in carbon (brown material) includes hay or straw, leaves, ashes, woodchips, shredded paper and garden waste.

4. Using the spray bottle, add enough water to keep the compost moist but not soggy, like a wrung-out sponge.
5. Ongoing tasks:
 - Turn the compost at least once a week to increase air circulation.
 - Add water as needed.
6. As materials decompose, they create heat. This is natural, and when the pile is turned, you will be able to feel the heat. Have students take the temperature of the middle of the compost pile every week and describe how decomposed the material looks. Decomposition will begin in about two to three weeks.
7. The compost is ready when it is dark red, brown, or black, and when the materials have broken down into small fine particles. Apply the compost to your garden one to three inches thick. Turn and mix it with the soil.

DISCUSSION

What areas around your school, home or community can benefit from compost?

Try at home, participants should choose a level spot about three feet square, preferably out of direct sunlight and shade. Different construction methods can be used:

- Assemble wooden stakes and chicken wire into a simple round enclosure for the pile.
- Construct a wooden compost bin (use old lumber, if you have any).
- Fashion a three-sided enclosure by planting cinder blocks on top of each other.
- Use no enclosure at all. Simply pile the materials up, keeping them in a fairly dense heap.