

# Composting - How It Works

**1. Microorganisms are the key to composting.** Creating the proper habitat for them, with a balance of moisture, air and food, makes them more efficient at processing organics. Decomposers differ in their need for temperature zones and types of organics.

## Ingredients - Kitchen

- Vegetable peels & seeds
- Fruit peels & seeds
- Coffee grounds
- Egg shells
- Nut shells
- Any other vegetable or fruit scraps
- Waste paper



Food scraps



- Do Not Add:**
- \*Grease, fats, oils
  - \*Fish, meat, bones
  - \*Dairy
  - \*Pet or human feces
  - \*Treated wood

**2. Diverse types of organic material will provide the habitat for many decomposers.** Layer the material: start with a layer of carbon (dry brown material) then a layer of nitrogen (manure, food scraps). Continue in this manner until your pile or container is 1 cubic meter or larger. If you have a large amount of organic material, you will build a windrow, a long narrow pile, 1-2 meters high x 2 meters wide x as long as there is space.



Coffee grounds, egg shells, peels



Leaves



Grass & yard trimmings

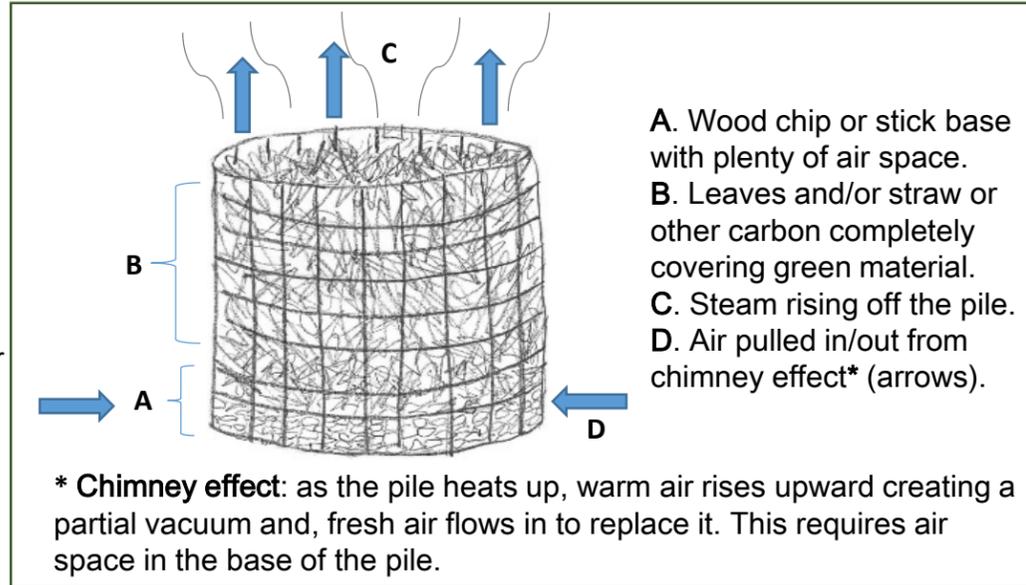
## Ingredients - Yard or Garden

- Waste hay or straw
- Sticks & leaves
- Clean sawdust
- Rice hull
- Weeds & other garden waste
- Manure



**3. The organics should be moist so the microorganisms can digest the material.** Moisture comes from the wet, nitrogen rich materials in the pile. Some piles may need more. Rain may help give the compost pile the moisture it needs. If you want to capture more moisture from rain, keep the top of the pile flat or make an indentation to channel the water. If the pile has too much moisture make a peak on top and the rain will run-off. To check the moisture, take a handful of the compost mixture and squeeze it in your hand. If water runs out it is too wet, if the mixture falls apart when you open your hand it is too dry, if the ball holds its shape and only a drop or two of water comes out, it is the correct moisture level to produce compost.

**4. Make sure enough air is getting into the pile.** The pile or window can work without turning if the material has enough natural airspace, that is why we mix or layer carbon (dry, brown materials) with nitrogen (wet manure, food scraps). If the material is too dense, the pile may need to be turned to break the material up which will increase airspace. Turning also serves to mix the material which can speed the process.



**5. When the microorganisms are working they give off heat.** As there are millions of them processing organics, the temperature of your pile will increase to 104-149°F. This indicates that the process is working. As long as there is food, air and moisture the pile will stay hot. When it cools down that indicates the pile is going into a curing phase and completing the cycle.

**6. The compost process can take 6 months to 2 years** depending on all of the variables: air, moisture, food and amount of undigested carbon in the pile.



Sowbug



Snail



Rouge Beetle

# Easy On-site Composting!

Turn lawn and yard trimmings and food scraps into rich compost your plants will love.

**Making compost takes some care; add greens, brown, water and air.**

Keep a store of browns near to add throughout the year.

Make your pile come alive. Encourage microbes to help it thrive.

If your pile gets too dry, add water, don't let it die!



Composting at School



You need a lot, to get it hot.

Let fresh air flow through your pile, for an earthy smell all the while. Mix or turn to add more air to make fresh compost you can share.



Finished Compost

Curing Pile

Take it slow, nice and steady, give compost time to get ready.