

Composting is an excellent way to recycle biodegradable resources while creating a valuable soil amendment and key component of your garden program, for free! When added to the garden soil, finished, "living" compost improves soil drainage and water retention and adds organic matter, nutrients, and essential living organisms to the garden. Living compost contributes to the health of soil and plants by helping to establish the soil food web, which supports the recycling of nutrients in the garden ecosystem and contributes to sustainability.

## COMPOST MATERIALS

- Bin materials (wooden palettes, discarded bicycle inner tubes)
- Sign-making materials (scraps of wood, paint, drill for rope holes, rope or other non-permanent means of attaching to bins; signs will need to move as active pile rotates)
- Hand clippers/pruners and loppers (for processing materials)
- Garden gloves and closed toe shoes
- Water key and access to a hose that reaches the bins
- Compost thermometer (order online)

## CHOOSING A COMPOST SITE

- A shady area is best, so compost piles can stay moist even in dry weather.
- The site must have access to a water source (a hose will be used for regular watering).
- It is ideal to have at least three separate bins that are labeled with signs:
  1. "Resting Pile" - do not add anything; allow to break down for 2 to 3 months.
  2. "Active Pile" - only add processed (clipped/chopped) materials.
  3. "Storage Pile" - for storing unprocessed materials.



## COMPOST BIN CONSTRUCTION

- Compost piles should be a minimum size of 3'x3'x3'.
- Creating compost inside a bin can help to keep the process neat. However it is not essential to have a bin as piles can also be "freestanding."
- Bins can be constructed easily at very little cost:
  1. Collect wooden palettes (free) of equal size (3 compost bins = 7 palettes total).
  2. Form bins by standing palettes upright and forming 3-sided cubes.
  3. Tie palettes together at the corners with discarded bicycle tire inner tubes (free).
  4. Notes: In areas with feral pigs, you will need an extra palette for each bin to cover the front side of the bin. Palettes may be painted prior to bin assembly and may last longer this way.

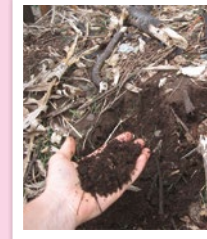
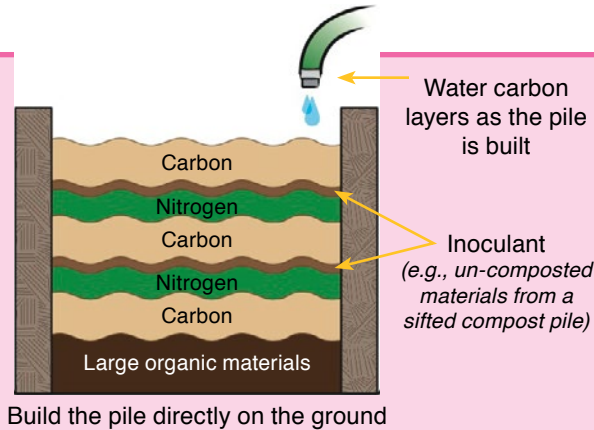
## COMPOST MAINTENANCE

- Invite custodians to collect and bring school yard wastes to the compost area. Bags of "unprocessed" yard materials can be left in the "Storage Pile" bin.
- At least one class and teacher (or club) must be dedicated to weekly maintenance of the compost bins and compost area, including:
  - Processing (clipping and assembly) of materials into a compost pile in the "active" bin.
  - Watering the active and resting compost piles thoroughly: piles must be kept moist, but not soaking.
  - Keeping the composting area neat and clean.
  - Optional turning of compost piles: Turning helps the pile break down faster. If desired, use a pitchfork to turn the pile into an empty bin. If the compost materials appear dry, water them as they are turned.
  - Optional temperature monitoring: Use a special compost thermometer to regularly monitor the temperature of the pile in order to ensure proper decomposition. Weed seeds and pathogens are inactivated and beneficial microorganisms thrive at temperatures between 55 - 70 degrees Celsius. When the temperature begins to drop, turn the pile and add water and nitrogen/carbon materials as needed to maintain a healthy balance.

# How to... Create Aerobic Compost

## WHAT TO COMPOST

Create a compost pile by layering “browns” (carbon) and “greens” (nitrogen) and watering thoroughly as the pile is built. The very bottom layer of the compost pile should consist of larger materials such as branches and palm fronds, in order to facilitate air flow. Below is a list of what to add and what not to add to your compost piles.



Greens + Browns +  
Air + Water + Life =  
Aerobic Compost!

## YES

### Nitrogen-rich materials (“Greens”)

- Fresh grass clippings
- Fruit and vegetable scraps (keep toward center of pile and always cover with a layer of carbon material)
- Kitchen scraps like coffee grounds, egg shells, leftover bread, rice, etc.
- Fresh, leafy garden trimmings
- Burned and crushed shells and bones (for calcium)
- Seaweed/invasive algae

### Carbon sources (“Browns”)

- Chipped trees (wood chips)
- Dry leaves, dry grass clippings
- Twigs, small branches (chopped)
- Sawdust (from untreated wood)
- Stems of fibrous grasses
- Palm fronds (chopped or shredded)
- Newspaper or office paper (shredded)

## NO

### May contribute pests (weeds, plant diseases) when inadequately composted

- Weedy, persistent plants
- Diseased plants

### Human health hazard

- Dog or cat feces, used kitty litter
- Magazines (heavy metal inks)

### May attract flies, rats, animals

- Oils
- Dairy products
- Meat or bones of animals, poultry, fish
- Processed food products

### Are not biodegradable

- Metals, glass
- Rubber, plastics

## COMPOST PILE TROUBLESHOOTING

Symptoms	Likely problems	Solutions
Offensive odor	Insufficient aeration	Turn and “loosen” pile
Ammonia odor	Too much nitrogen	Add carbon-source materials
	Insufficient nitrogen	Add nitrogen-rich materials
	Pile too wet	Turn, add dry carbon sources, protect from rain
	Pile too dry	Turn, sprinkle with water
Pile doesn't heat up	Pile too small	Add more materials
Pile attracts flies, animals	Inappropriate materials	Don't use meats, oils; remove attracting materials or rotate them to center of pile and cover pile with carbon-source materials