Composting

Composting in the Classroom

Successful implementation of waste reduction, reuse, recycling and composting in schools bring many rewardsð including potential cost savings for tight school budgets. This detailed how-to on composting is for rural schools of all sizes.

Getting started - Integrating food scrap collection into the cafeteria or lunchroom requires dedication and teamwork to ensure success and sustainability.

- Form a compost team: the team should include someone from the administration, teachers, custodial, cafeteria staff , parent and plus students.
- Consult local solid waste office
- Choose a composting option: offsite service, onsite or vermicomposting
- Google how to compost for more detailed information
- Formulate a budget
- Conduct a cafeteria waste sort
- Decide how compost will be collected and handled

Composting food waste on school grounds requires dedication and a long-term maintenance commitment, but it is likely the least expensive option.

Materials:

- Shovel or pitchfork
- 2-Bin
- Buckets
- Gloves
- Containers for collecting and transporting materials
- 10 x 10 feet space
- Leaves or carbon material
- Red worms, optional

Site that sell worms is www.unclejimswormfarm.com/

Location: A garden, grassy area or bare ground about 10-by-10 feet will work for most schools. Water should be accessible. The site should be away from buildings, but within close proximity to the cafeteria to allow for easy movement of collected materials.

Contain it: The number of compost bins needed depends on the volumes of compostablesï for every bucket of food scrapes, two buckets of leaves or carbon materials will be added. At least two bins are recommended to start.

Proper composting requires enough leaves or other carbon sources for a 60-to-40 ratio of carbon (dried grass, straw, animal bedding or shredded newspaper) to nitrogen (food scraps).

Vermicomposting System

Vermicomposting (red worms) offers an alternative strategy for onsite composting. It is a process that uses worms to convert organic material into a soil amendment. A worm composting bin in the classroom offers an exciting demonstration of ecology and recycling in action; large outside bins can be built for composing of kitchen and cafeteria food scraps.

A worm home can be purchased or made from a plastic tote (colored, not clear or see-through), with holes drilled every 2 inches (using a 3/8-inch drill bit works best) around bin, lid and a few on the bottom. Larger bins can be made from a wooden box with holes around the side and bottom (1.5 feet high by 2 feet deep by 3 feet wide).

Credits:

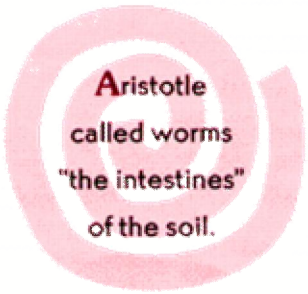
GLES and Resource Recycling

Composting in the Classroom

The Menu Special Today is Food Waste

Worms are not picky eaters, they will munch on just about anything, in quantities that would shame a sumo wrestler. That being said, there are still a few things you should know about what to feed these consumers.:

Peels and other vegetable waste: Worms will devour most any fruit or vegetable, with gusto. Rinse off banana peels because they readily attract fruit flies. (Some vermicomposters report that their worms do have preferences.)



Coffee grounds and tea leaves: You can even toss in coffee filters and tea bags -- the worms will chew up the porous paper in no time, but take off the tea bag tag first and the little metal.

Plate scraps: Mashed rutabaga, succotash, and the spaghetti, or gravies -- all of it can go in the bin.

Egg shells: Crush with a rolling pin before adding to the bin for smoother compost later.

Spoiled food: Go crazy, worms eat anything that's put in front of them, but stay away from dairy products. So include leftovers leftover a little too long, and other "aged" foods. If you want to add something that's really rotten, bury small portions deep in the bedding and cover well to discourage fruit flies.

Meat and bones: It is best to stay away from these two because meat scraps are the first to smell rotten. Bones may attract neighborhood dogs that can dig in your garden.

NOT on the menu, ever: Dog or cat feces, used kitty litter, or non-biodegradable items such as rubber bands, aluminum foil, bottle caps or glass.

Keep it Close & Not Too Hot: Put your bin somewhere that's easy to get to, and where worms won't be subjected to temperature extremes. Worms like temperatures ranging from 55-77° F. Basements, heated garages or breezeways are usually good sites.

Remember, you're in charge of the menu and the portion size. Be mindful of what your worms eat or ignore, and you'll soon know what you can put in the bin and what you should avoid.

Visit EEK! Our Earth: http://dnr.wi.gov/org/caer/ce/eek/earth/recycle/compost2.htm

Why Compost?

- Ideal for growing medium herbs, fruit & veggies
- Conserves landfill space
- Saves money
- Good alternative to chemical fertilizer
- Wards off pests and weeds
- Reduces erosion
- Restores nutrients in soil
- Breaks-down clay based soils

Credits:

Environmental Education for Kids

Decorate a Compost Bin

How to make it:

1. Have an adult cut the following holes into the storage bin: A series of holes, about a centimeter wide and three centimeters apart, along both edges of the bin. On the bottom of the bin, cut a hole one centimeter wide and three centimeters long in two opposite corners. The compost bin will need ventilation in order to let air and moisture circulate.

2. Place plastic bin on its side and use the craft pain to create designs. Use bright colors to create simple flowers, stems, leaves and grass.

3. Use your pointer finger to dot on insects with bright colors, using the end of a paint brush, dot white on either side of the finger print to make their wings.

4. To decorate the lid, paint each foam stamp with a good amount of paint, and press carefully but firmly onto the lid surface. Continue with each letter until your have spelled out ñCOMPOSTò.

5. Paint leaf stamps with green paint and decorate the lid around the word ñcompostò.

6. Allow all the paint to dry.

7. In a well-ventilated area (preferably outdoors) spray all painted surfaces with acrylic sealer spray. Let dry. Repeat this process for a total of three times. This will help protect your painted surface form the outside elements.

8. Make your starter compost (instructions below) and place outside. If you are placing the bin on the porch or patio, you may want to use an extra lid cover as a drip pan.

Making Compost Line your bin with a few inches of clean potting soil. You can also add dry leaves to the soil, as they are full of nutrients. Sand and small pieces of black and white newspaper will work as well.

There are many items that can be added to your bin and just as many that should be avoided. Vegetable and fruit scraps (potato and carrot peeling, apple cores, banana peels, etc) are a great addition to your compost bin. These items will add moisture so you will also need dry matter to keep the moisture level from getting too high.

Avoid meats, dairy, fish, or bones--they decompose very slowly and the smell they create will attract animals. Also no glossy magazine paper or materials from the side of the street (they might contain chemicals or other debris). For a complete list of the dos and don'ts, go to Organic Gardening's guide to composting (http://www.organicgardening.com/learn-and-grow/compost-ingredients)

Dry matter can include dry leaves, straw (not hay), grass clippings, and even sawdust from untreated wood.

Add a layer of moist matter covered by a layer of dry matter. Turn and mix (aerate) your compost bin contents every 4-5 days. If you feel heat coming from the mixture you know that your bin is working properly.

Tips:

- Teaching children about composting is a great way to introduce them to the magic of Mother Nature.
- Composting also keeps biodegradable items out of the landfill and makes great soil to place in potted plants or in gardens.

Materials:

- 3-5 gallon plastic storage bin with lid
- Craft paint in bright colors
- Foam alphabet stamps (letters C, O, M, P, S, T)
- Foam leaf stamps
- Clear acrylic sealer spray
- Heavy-duty knife or power drill

Credits:

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