

# Compost ~ The Miracle Worker

## Materials Needed:

- One clean plastic gallon milk or water container
- Some garden soil from outside (not potting soil)
- Cut/chopped grass, leaves, vegetable peelings
- Sticks, forks, spoons for stirring
- Water

## Background Information:

Many **plant** parts can go into compost — leaves, coffee grounds, apple, potato, and carrot peelings, and even shredded paper. Do NOT use any cooked foods, meats, fats, or dairy products. It is important to include both “green” (grass, green leaves) and “brown” (dried leaves) for quick composting. Composting occurs when there is a ratio of carbon (“brown” goods) and nitrogen (“green” goods) in the presence of oxygen and water. Cut or break into small pieces the materials being composted so that they will compost more quickly. Composting is important because it breaks down plant wastes into nutrients that living plants can use. Watching the process closely over time can be a fascinating experience.

## Directions:

1. Put the cap on a clean, rinsed one gallon plastic water jug.
2. Turn the jug on its side with the handle up. Cut a flap in the top so that you can reach inside with a stick, spoon, or fork to stir the compost.
3. Collect SMALL-sized food scraps like fruits and vegetable peelings, greens, and coffee grounds. Chopped leaves and grass clippings may also be used.
4. Spread a layer of soil on the bottom of the composter. Use soil from the garden outside rather than potting soil since it contains bacteria. Add your scraps of fruits and vegetables, leaves and grass clippings. Include some worms if you can find them. Cover your “stuff” with another layer of soil. Sprinkle or squirt the mixture with a little water if it looks dry. Do not soak the compost mixture.
5. Place outside since it may smell a little or add a brick of plain charcoal to the container. The charcoal will keep your compost smelling good. (Do not use charcoal that has been soaked in lighter fluid.)
6. Stir the mixture every day, adding a little more water if it looks dry. Avoid over watering. The mixture should be lightly moistened, not wet or muddy. For the first two weeks you can continue to add another layer of recycled food or yard waste.
7. At the end of two weeks, do not add anything else. Continue to shake the container or stir the compost every day, and add a little water if it dries out.
8. The bacteria and molds will make your compost turn into brown soil in about 6-10 weeks after you stop adding new material. Then the compost should be ready to spread around garden plants or be mixed with soil and used as a potting mix.

## Activities:

- a. Make a list of the layers of material you added.
- b. Record the change in the contents of the composter as you observe. Which materials decompose first? Which materials take longer to decompose? Why do you think this happens?
- c. Keep track of how long it takes for your waste material to turn into rich compost.
- d. Put in a piece of aluminum foil, plastic, or styrofoam. Leave it in the composter the entire time. Does it break down? Why or why not?
- e. Use your compost to plant some seeds.