



Compost Central

Audience

Activity designed for 6 years old and up, with supervision.

Goal

Students will learn about the advantages of composting, how there are two types of waste in trash and the importance of decomposers.

Objective

- To learn about composting and how it can be beneficial.
- To identify that trash is made up of two types of waste: inorganic and organic.
- To understand the importance of decomposers.
- To build a compost bin.

Conservation Message

Composting adds beneficial nutrients and microorganisms to the soils. Organic waste in our trash goes to landfills and produces potent greenhouse gases. We could reduce those gases by making compost piles in our yards or having compost bins in our apartments.

Background Information

Composting begins with three organic ingredients: browns, greens and water. Brown ingredients includes dead leaves, twigs and small branches. Green ingredients on the other hand is organic material such as grass clippings, vegetable and fruit scraps, and used coffee grounds. The goal of composting is for everything to break down naturally to produce soil. You want to be sure to have equal parts brown to green and keep everything moist. The browns add carbon while the greens add nitrogen. Together, along with water, the materials breakdown over time. The soil produced is high in nutrients and microorganisms and is great to use in gardens and as potting soil mix.

Indoor Compost Bin

One way to enjoy composting benefits is by making a compost bin. These are great for apartments or small houses because they can be kept inside. There are several ways to make a compost bin indoors. You can use a plastic storage bin, buckets with lids, and

even old dressers with a wooden piece on top. The important part about having an indoor compost bin is cutting waste into small pieces. If you make waste smaller it will decompose faster and will have less of a smell. You will also need to add a layer of soil to your compost bin. It would be best to use soil from your yard because the native microbes will help breakdown the waste in your compost pile. Another important aspect is “turning” your compost. This means that every few days you need to mix the compost to avoid having too dry or too soggy waste. It is beneficial to add shredded paper occasionally, or if you see that your compost is getting too soggy. This adds carbon to the compost and helps maintain a more ideal moisture level. It is important that you do not put any meat or animal by-products into the compost.

Outdoor Compost Pile

If you have a yard or greenspace, an outdoor compost is a great way to get rid of organic waste while enjoying the outdoors. You can use the same bins used for indoor composting or you can build an outdoor compost bin. An outdoor compost bin requires less work than an indoor one. You don't need to turn the compost as much, instead of every other day as you would for an indoor bin, an outside bin just needs it every other week. Another positive about having an outdoor compost is that waste does not need to be in such small pieces. This is because with the bin being outdoors it gets hotter and therefore breakdown occurs more quickly.

Materials

- Plastic storage container, Bucket with lid, etc.
- Soil
- Brown Organic Material (Twigs, Dry Leaves, Branches)
- Green Organic Material (Grass Clippings, Fruit & Vegetable Waste)
- Drill (Adult Supervision Required)
- Shredded Newspaper/Copy Paper
- Water

Length of Activity

40 minutes

Procedures

- Drill holes in the lid of your bin. These holes will allow air into your bin. Drill approximately 8-10 aeration holes.
- Create your base layer, by filling your bin about ¼ full with shredded newspaper or dry leaves.
- Place a layer of soil on top of the base layer until the bin is about half full.
- Now the bin is ready for food scraps. Remember, do not include any animal products (meat, fat, bones, grease, dairy, eggs, etc.) to the compost as these do

not breakdown and will make your bin very smelly. Good items to add are fruit and veggie scraps such as banana peels, potato peels, and avocado skins. Other items you can compost are copy paper, cardboard, and wood shavings.

- Time to turn that compost! Mix your bin contents with a shovel or stick. Make sure that all food scraps are covered with dirt.
- Time to moisten your compost. It is important not to completely soak your compost; too much water will make your bin smelly. Add just enough water so that the dirt is damp.
- You are now a composting machine! Depending on where your compost bin is (inside or outside, shaded or in direct sun) will determine how often you need to stir or turn it. Mixing the compost helps everything break down faster.