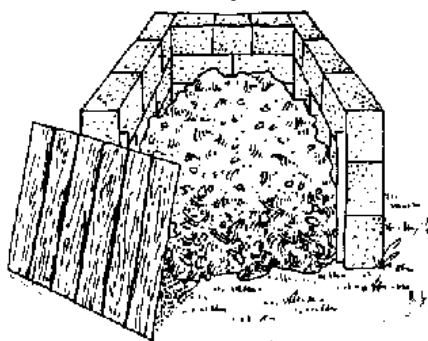


Building a compost bin

Composting is fun. It's also easy. Let's learn how we make compost and how we use it to grow beautiful gardens.

Nature recycles leaves and plants. In a forest, leaves fall forming mulch that protects the soil. Over time the leaves decompose into nutrients that feed forest plants.

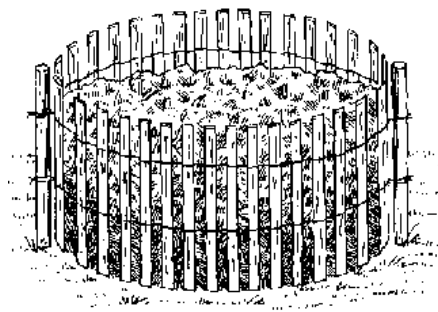
You can recycle leaves and other plant materials at home or at your school by setting up a compost bin. Here's how you do it:



1. Set up the bin
2. Here's the recipe for compost
3. Start with brown stuff, like leaves
4. Add green stuff, like grass clippings
5. Shovel the soil
6. Water
7. You're finished!
8. What happens now?
9. Ways to use compost

1. Set up the bin

First select a spot to set up your [compost bin](#). It should be out of the way but convenient to reach with plenty of room to work around. Some good places would be near your garden or in a back corner of the yard. It is also a good idea to choose a location close to a source of water.



2. Here's the recipe for compost

Now for the recipe for compost. The micro-organisms that recycle leaves and other plant parts need an even mix of brown stuff and green stuff to munch on. They also need air and water to live and work. Put all this together and in time you will have compost!

Recipe ingredients

- Air
- Water
- Brown stuff
- Green stuff

What is brown stuff? What is green stuff?

Brown stuff is dead, dried plant parts like leaves and pine needles. Brown stuff is high in the element *carbon*.

Green stuff is fresh, living parts like grass clippings, kitchen vegetable scraps, weeds and other plants. Green stuff is high in the element *nitrogen*.

Don't use

Don't use meat, milk products because pets and other animals may try to dig them up out of your compost bin. Also don't use diseased garden plants. They can spread disease back into the garden later when you use the compost.

Don't Use

- | | |
|-----------------|-------------------|
| • Meat | • Milk |
| • Bones | • Fats |
| • Cheese | • Oils |
| • Pet droppings | • Diseased plants |

3. Start with brown stuff, like leaves

It is easiest to build our compost bin in layers of ingredients. Start with the brown stuff by spreading a layer of leaves or pine needles about 6 inches thick.

Brown stuff is high in the element carbon. You can use other things besides leaves for your carbon source.

Here are some sources of carbon along with their carbon-nitrogen ratio. You can use these numbers to figure out how much brown and green stuff you should use to make the best mix for composting. Some things, such as sawdust, are very high in carbon compared to their nitrogen content, while others, such as leaves, are not so high.

Carbon Sources	Carbon: Nitrogen
Carbon Sources	
Dried leaves	60:1
Pine needles	90:1
Newspaper	125:1
Sawdust	625:1

4. Add green stuff, like grass clippings

Next, for the green stuff, add a layer of grass clippings a few inches thick. It is helpful to mix the layers up a little as you make them.

Green stuff is high in nitrogen. Here are some sources of nitrogen along with their carbon-nitrogen ratio. Once again, you can see that the ratio varies a lot between the different ingredients.

Nitrogen Sources	Nitrogen:Carbon Ratio
Nitrogen Sources	
Food Scraps	15:1
Grass clippings	18:1
Coffee grounds	20:1
Horse manure	25:1

5. Shovel the soil

Then sprinkle a shovelful of soil or compost to add microorganisms to the bin.

6. Water

Each layer gets a good sprinkling of water to wet the ingredients. It is important to wet each layer as you build it. Repeat each of the layers until the bin is full and then...

7. You're finished!

...TAH DAHHHHH! the microorganisms will go to work breaking down the ingredients into humus. If you want faster compost, you can [mix the ingredients](#) every few weeks but this isn't necessary.

8. What happens now?

Now compost "critters," tiny microorganisms that you cannot see without a microscope go to work. They are busy breaking down the organic matter (the brown stuff and the green stuff) into compost. Later, as the compost cools down, you may see larger organisms such as millipedes, sowbugs, earthworms and others. Compost is teeming with living things!

After the critters finish their work, you have [compost](#). It is dark, earthy-smelling, and rich in nutrients. Plants love it!

9. Ways to use compost

Let's talk about how to use compost to help plants grow.

- Use compost as mulch
- Mix compost into planting hole
- Use compost in potting soil

Use compost as mulch

You can use compost as a mulch around garden plants. Mulch protects the soil and shades out weed seeds. Nutrients are washed out into the soil with each rain to feed the roots of plants.



Mix into planting hole

Compost is great for [mixing into the soil](#) when you are planting a new plant. It helps a sandy soil hold moisture and nutrients better and improves clay soils too.



Use compost in potting soil

Compost mixed with some sand makes a super potting soil for growing plants in containers.