



## What is compost?

Nature recycles leaves and plants. In a forest, leaves fall forming mulch that protects the soil.

Over time mulch decomposes into nutrients that feed forest plants.

You can recycle leaves and other plant materials at home by setting up a compost bin.

## Compost Recipe

### *Let's make some compost!*

Now for the recipe for compost. The microorganisms that decompose 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 recycle.

Put all this together and in time you will have compost!

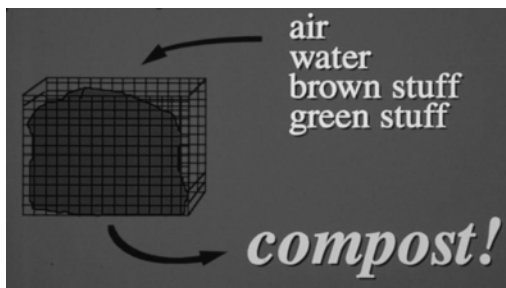
Brown stuff is dead, dried plant parts like leaves and pine needles. Brown stuff is high in the element **carbon**. Green stuff is fresh, living parts

like grass clippings, kitchen vegetable scraps, weeds and other plants.

Green stuff is high in the element **nitrogen**.

Walk through the Compost Outpost & read

what Tad O' Sense, Ima Gardener and Professor B.A. Gardener have to say about compost.



### Question:

**What ingredients in the compost recipe do you believe will decompose first? Brown or green? Why?**

*Use the journal page at the back to record your answer.*

## Ask an Expert!

Experts in composting are called Master Composters. Master Composters go through lots of training to become experts in composting.

Interview a Master Composter to help you set up composting at your school.



Call 817-871-7966 to be connected with a Master Composter.

List your questions for the Master Composter below.

What do you need to know to start composting at your school?

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# Compost Word Scramble

Unscramble the compost words.  
Answers below—don't peek!

MOSTCOP \_\_\_\_\_

MPSEDOCOE \_\_\_\_\_

VSELAE \_\_\_\_\_

OBNACR \_\_\_\_\_

GIRNTOEN \_\_\_\_\_

TAHE \_\_\_\_\_

MSORW \_\_\_\_\_

CLEZRCE \_\_\_\_\_

STAPLN \_\_\_\_\_

TRWAE \_\_\_\_\_

Answers: Compost; Decompose; Leaves; Carbon; Nitrogen; Heat; Worms; Recycle; Plants; Water

# Pile High!

Now that you are familiar with the Compost Outpost it is time to investigate!



What is the *volume* of each pile?

What is the *average* volume of the piles? \_\_\_\_\_

Compost Name/Type	Volume

### Question:

Which pile do you think will decompose the fastest based on your measurements? Why?

*Use the journal page at the back to record your answer.*

## Heat Energy

When the microorganisms recycle the leaves and other plant parts they create heat.

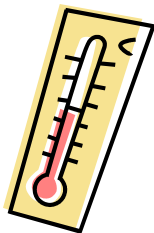
How hot can a pile get?

Most piles range between 70° to 90° and some can reach 120°.

Now that's HOT!

How hot are the piles in the Compost Outpost?

Measure the temperature of the piles in the Compost Outpost. Dig a deep narrow hole, insert the thermometer, wait a couple of minutes & record the temperature.



Compost Pile Type	Temperature

### Questions:

What is the *average* temperature? What *percentage* were below the average temperature? What *percentage* were above the average?

Use the journal page at the back to record your answer.

## Wormania!



Some composters use worms in addition to microorganisms to compost food scraps and paper.

This is called vermicomposting.

Worm composting can be done in the home using a sturdy container with a lid and air holes.

Worms need bedding materials to give them a damp place to live. Shredded newspaper makes the best bedding. Sprinkle a bit of water on the paper and add your worms.

Later you can add food scraps such as apple cores, lettuce, potatoes, tomatoes and coffee grounds. Be sure to not feed your worms fatty foods such as butter, cheese or any other animal products.



### Can you find some compost critters?

Dig in a pile and see if you can find worms, or other invertebrates such as sow bugs, mites, insects & millipedes.

Draw the compost *food web* below.

