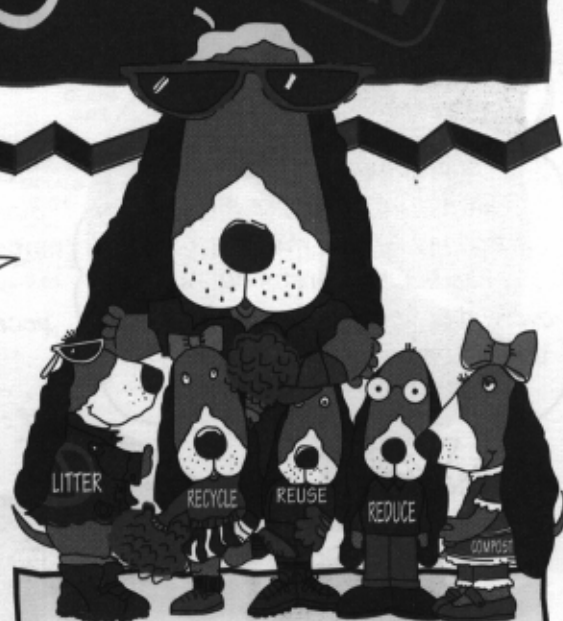


SPENCER'S TEAM NEWS

KID'S
EDITION

HI KIDS!

I'm Spencer and these four pups—
Reduce, Reuse, Recycle, and Litter Free — are part
of my team. We have made a commitment to help save
the environment by reducing, reusing, and recycling what
is typically thrown away in garbage cans. Recently a new
member joined us — Compost. In this newsletter, Compost
will show you how to recycle nature's waste and turn it
into something valuable for our earth. She will explain what
composting is, why it's important, and how it works. We hope
you become a member of our team by reading this newslet-
ter, filling out our survey, and completing the puzzle on the
back. We need everyone to do their part to lessen the
amount of garbage going to our landfills.



NATURE'S RECYCLING SYSTEM

Nature has garbage just like we do. Dead animals, animal dung, logs, branches, trees, leaves, and grass are just a few examples. However, unlike us, nature doesn't put its garbage in a landfill or incinerator because nature recycles it.

We follow nature's recycling system when we compost in our backyard or anywhere outdoors.

BACKYARD COMPOSTING

A compost pile is formed when we layer organic matter like grass, leaves, and fruit and vegetable scraps on a pile. Inside the heap are a variety of scavengers and decomposers. Scavengers include insects, spiders, and worms; decomposers include bacteria and fungi. They all work and live together, eating the once living material and breaking it down into tiny dark particles called humus. Humus helps in keeping soil healthy. If the soil is healthy, new living things can grow.



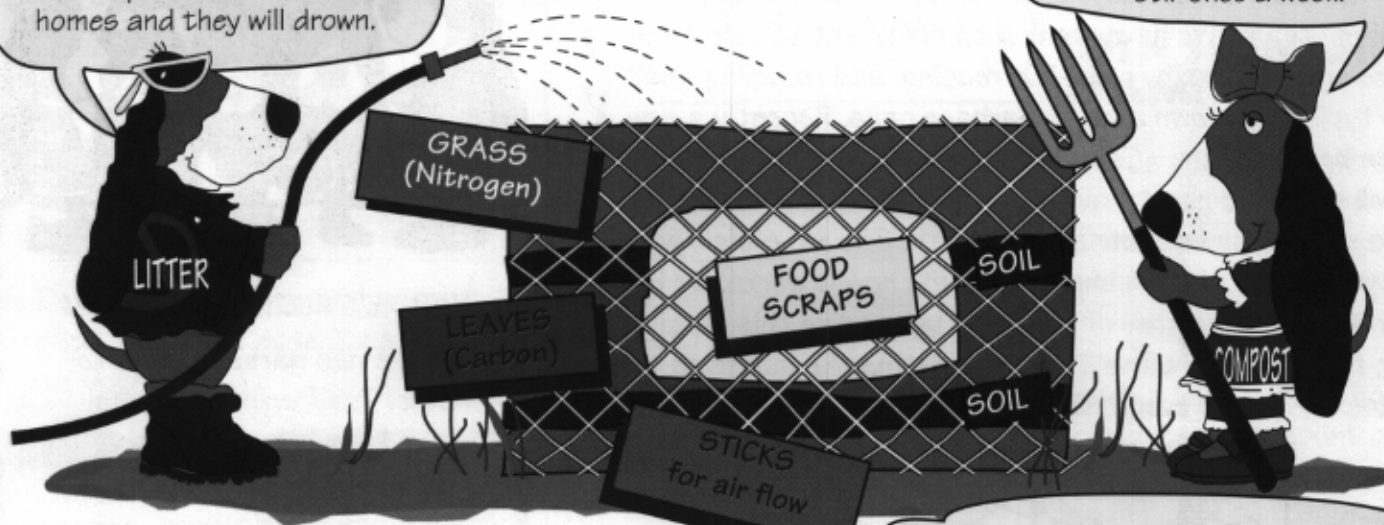
HOW TO COMPOST!

Making a compost pile is like making chocolate chip cookies. You must follow a recipe. The ingredients are a handful of soil, a sprinkle of water, oxygen, nitrogen (grass, fruit and vegetable scraps, fertilizer or cow manure), and carbon (leaves, wood chips, paper).

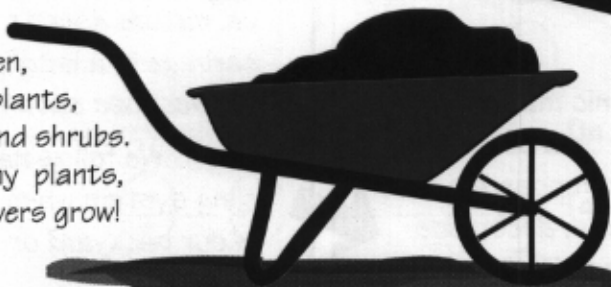
Your compost pile should always be damp like a wet sponge so add water when needed. Be careful not to overwater because you might flood the decomposers and scavengers' homes and they will drown.

Layer all the ingredients as the diagram below shows. Bury any new material, especially fruit and vegetable scraps, in the middle of the pile because they will decompose faster.

After the first week, mix the pile completely to add oxygen. Adding oxygen allows the decomposers and scavengers inside to survive and work faster. It also stops the pile from smelling. Continue to stir once a week.



Humus can be used in your garden, flower bed, houseplants, or around trees and shrubs. Watch your healthy plants, vegetables, or flowers grow!



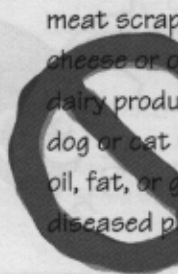
After 2 to 3 months, your compost will start to look dark in color, feel crumbly, and smell earthy. Now it is HUMUS. Let the humus cure (sit) for a couple of weeks before you use it.

DO COMPOST

grass and leaves
twigs and sawdust
fruits and vegetables
egg shells
coffee grounds
paper
wood ashes
tea bags

DON'T COMPOST

meat scraps
cheese or other dairy products
dog or cat manure
oil, fat, or grease
diseased plants



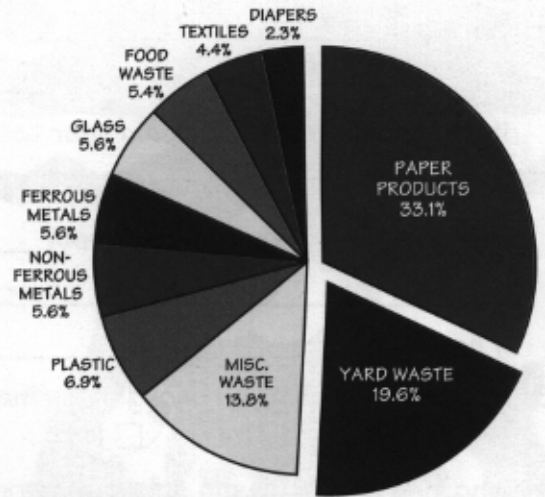
WHY COMPOST?

IMPROVES THE SOIL QUALITY

Some people call their leaves, grass, weeds, and twigs "yard waste," but they really should be called "yard resources" because they can be turned into humus. When changed into humus, valuable resources are returned to the soil, rather than sitting in landfills.

SAVES LANDFILL SPACE

If you were to dig up garbage in a landfill, what would be the item you'd find the most? Paper! Products such as cardboard, and newspaper comprise the largest percentage of what is landfilled. Yard resources such as leaves, grass, branches, and weeds are the second highest material found in a landfill. After yard resources are buried in a landfill, decomposition is slow because no oxygen can reach it underground. To save landfill space, Ohio passed a law (House Bill 592) that doesn't allow yard resources into Ohio landfills after December 1, 1993. Because yard resources can be composted, there is no reason for them to be sent to landfills.

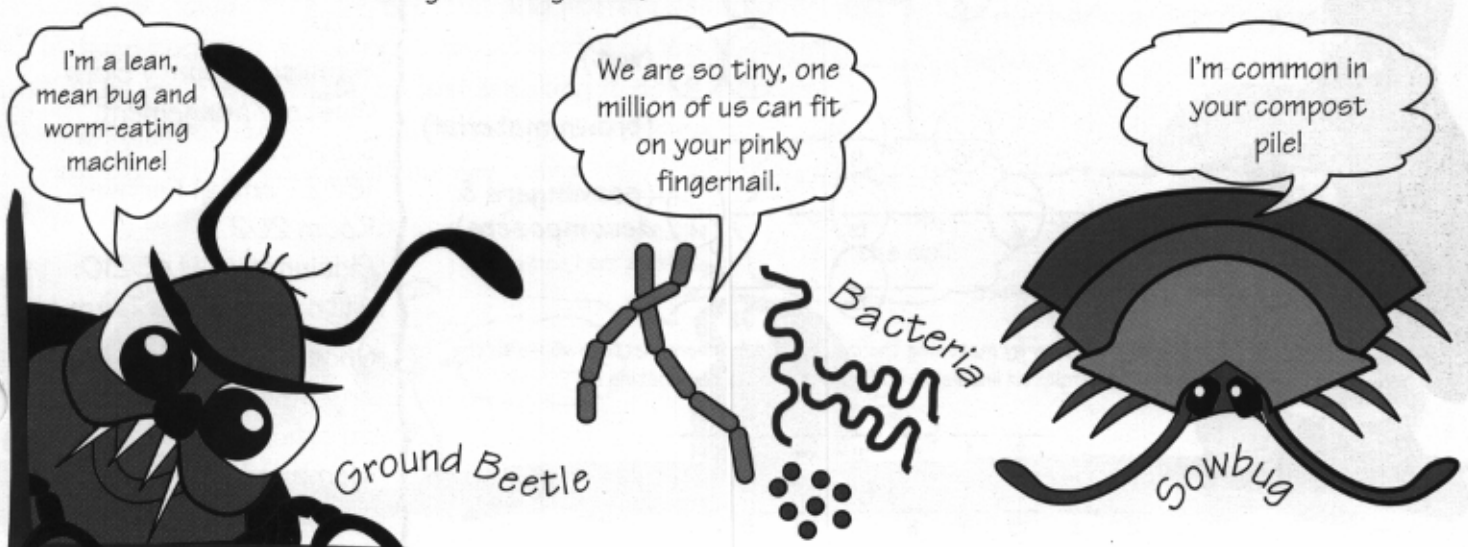


Hamilton County Residential Waste Stream, 1990 (by weight)

THE GREAT BREAKDOWN

To break down organic matter, decomposers and scavengers need energy, air, and water. ENERGY is provided through carbon and nitrogen. Carbon (brown material like dead leaves, wood chips, and paper) provides energy for the organisms to function. Nitrogen (green material like grass and vegetables) provides energy for the organisms to reproduce. OXYGEN makes sure the organisms don't suffocate. Enough oxygen is supplied when the compost pile is turned once a week. WATER keeps the organisms moist. They get thirsty just like we do.

When we work hard or run fast, we get hot and sweaty. So do the organisms living in the compost pile. As they eat the material, energy is given off in the form of heat. The harder and faster the organisms work, the hotter the compost pile. If you take the temperature in the middle of a compost pile, where most of the organisms gather, it could be as hot as 140° F.



EVALUATION

Name _____

Address _____

Telephone _____ School _____ Grade _____

1. Where did you get this newsletter? _____

If you got it from school, did your teacher go over the newsletter in class? ☐ Yes ☐ No

2. Did you like this newsletter? ☐ Yes ☐ No

If yes, what did you like the most? _____

If no, why not? _____

3. Did Compost give you enough information on how to start your own compost pile? ☐ Yes ☐ No

4. Who else will you teach about composting? _____

5. If Spencer did another newsletter, what would you like to learn? _____

6. Do you want a copy of Spencer's last kids' newsletter that features pups, Reduce, Reuse, Recycle, and Litter Free?

☐ Yes ☐ No, I already have one

COMPOSTING WORD PUZZLE

Use the following clues to fill in the blanks.

The name of matter that was once living: — — — — — (1) (2) (3)

Five Ingredients needed to compost: — — — — — (4) (in air)

(5) (6) — — — — — (7) (green material)

— — — — — (8) (9) (wet)

(10) (11) — — — — — (brown material)

— — — — — (12) (13) (14) (scavengers & decomposers)

The finished product: — — — — — (15)

Fill in the blanks below by matching the circled and numbered letters above to the corresponding numbered line below to figure out what composting is.

2 1 6 15 9 7 14
L
11 8 10 4 3 13 5 12

JOIN SPENCER'S TEAM!

Help us spread the word about composting and other important issues such as reducing, reusing, recycling, and litter prevention. Together, we can teach a lot of people how to reduce the amount of garbage that goes to a landfill. Join our team and keep our environment clean! To be an official member of Spencer's Team, complete the survey and puzzle on this page and return it to:

Hamilton County Solid Waste Management District
1632 Central Parkway,
Room 202
Cincinnati, OH 45210:
Attn: Spencer's Team

Once I receive your survey and puzzle, I will mail you an official "Spencer's Team Membership Packet"!