

Composting with the FBI!

For more info, contact the Department of Public Works at 617-349-4836 or visit www.cambridgema.gov/recycle.

Vitamins for the Earth



Every human being on the planet needs food to survive. From pickles to pizza, all food comes from the earth! In order to grow food, we need **topsoil**, which is the top six inches of the earth's soil. One way to keep topsoil healthy is to add **compost**. It looks like dirt and is dark like chocolate. Compost also smells fresh like rain and contains many **nutrients**, or vitamins, which help plants grow. Nature creates compost with help from the FBI!

The FBI hard at work

The **FBI** or **Fungus**, **Bacteria**, and **Invertebrates** are also called **decomposers**. Decomposers break things down. They help turn **organic matter** like decaying plants and animals, into vitamin rich compost. Compost is created when the FBI eat and digest items such as old bread, dried leaves, and banana peels. The FBI decompose food in different ways.

F is for Fungus



When bread sits around too long, it starts to grow fuzzy white or green **mold**. This is the work of **fungus**, a group of **organisms** or living things that include mold and mushrooms. Like our bodies, mushrooms produce powerful chemicals that break down food. These chemicals are called **enzymes**. As mushrooms release enzymes, they are able to dissolve organic matter around them.

B is for Bacteria



Zillions of **bacteria** are all around us! Bacteria are living things so small that we cannot see them without a microscope. While some bacteria make us sick, other bacteria used in medicine to keep us healthy. Bacteria keep our eyelashes clean and give yogurt its sour flavor. Bacteria also help make compost. One type of bacteria warms the compost pile so that the other bacteria can survive. As bacteria break down organic matter, nutrients are released into the compost.

I is for Invertebrates



Invertebrates are animals that do not have backbones. They wriggle, crawl, and slide their way through the compost pile. Invertebrates break down organic matter by chewing and grinding. Slugs, snails, spiders, worms, beetles, mites, ants, and sow bugs are some members of the invertebrate work force!

Each invertebrate plays a different role in the compost pile. For example, not only do sow bugs eat decaying leaves, they also carry bacteria and fungi around the pile on their rounded backs. They're sort of like taxi drivers! Snails and slugs chew rotting material into pieces small enough for other decomposers to eat, and millipedes and beetles feed directly on decaying plants and animals. Worms have a different role to play. As worms wriggle and dig through the compost pile, they **aerate**, or add air to the pile. This air helps keep the FBI alive.

Let's Help Nature!

Nature is constantly filled with things that die, decay and get born anew. For instance, a dead redwood tree decaying on the forest floor provides a perfect home for a new redwood sapling to grow. This shows nature's ability to recycle organic matter. We can help nature recycle our own organic waste by composting at home or at school. Instead of throwing leftover food into the trashcan, we can compost it! The rich compost we create can then be used for houseplants, gardens and farms. There are several ways to compost:

Outdoor Compost Bin



Many people compost in their backyards. When they do it's like making "compost cake" because outdoor bins layer kitchen scraps and yard waste. Materials are stirred with a shovel to bring air to the decomposers. As organic matter breaks down and decomposers move around, the pile can become hot. Sometimes steam comes out when they are stirred! Keeping the pile as moist as a wrung-out sponge helps decomposers survive and do their job well. It can take about 8-12 months to create finished compost, depending on what is put in and how often it is stirred. Animal products like meat and cheese should not be put in backyard compost bins to avoid attracting **rodents**. The Cambridge DPW sells discounted home compost bins to the public.

Composting with Worms



Worms are composting champions! One way to compost is to create a worm bin that can be kept in your classroom or apartment. Worms scoop up food with their mouths and pass it through their bodies. What goes into a worm as a banana peel comes out the other end as crumbly compost called **castings**. Castings look like coffee grounds and are full of vitamins. Since worms don't like meat and cheese feed them only fruits and vegetables instead.

Drop Off Food Scraps

Cambridge residents can bring food scraps to the Recycling Center at 147 Hampshire Street during open hours (Tues/Thurs 4pm-7:30pm and Sat 9am-4pm). Bring food waste in a paper bag or bucket, but no plastic bags. The food waste is taken to local farms to be transformed into compost to help grow food. By placing pizza crusts, apple cores, and banana peels in the compost barrel, we can reduce waste and fight global warming.

Lunchroom Composting at School



Your school is among the first Cambridge schools to compost its lunchroom leftovers. Students put all food and soiled paper in the yellow barrel. Please no plastic, foil, Styrofoam or glass, because it will end up as litter at the farms composting our food waste. By placing pizza crusts, apple cores, and banana peels in the compost barrel, we turn food into flowers!

The FBI Needs You!

The FBI are amazing creatures that turn waste into compost. This natural **fertilizer** builds healthy topsoil and helps protect our planet's food supply. Let's help the FBI. Let's compost!

