

The Challenge:

Sort and mix different materials to make your own creative compost concoction

You will need: (enough for each student):

Brown materials (paper bags, dry leaves, hay, egg shells), green materials (fruit/vegetable scraps), non-compostable items (plastic bag, plastic utensils, foil), recycled containers with lids, 8 oz of water, small shovel, worms (optional)

1. Set all the materials on a table. What do you notice about how the materials are similar or different?
2. Healthy compost requires both brown and green materials. Which of your materials do you think are in the "brown" or "green" groups?
3. Hypothesize which materials will not be added to the compost. Why?
4. Choose a brown material to put at the bottom of the bin as layer #1. Next, choose a green material to add to the bin in layer #2. Then, select another brown material to add as layer #3. For layer #4, add a green material.
5. Take a moment to observe your compost worms, then add a few worms into the compost.
6. Add some water to moisten the compost. Then use a shovel to mix the different layers together. Mixing our compost helps keep it from getting stinky.
7. Have an adult help poke air holes in the container's lid and put the lid on the container. Place the compost in a sunny spot. Stir the compost one time each day.
8. After a few weeks, when all your green and brown materials begin to look like soil, add your compost and worms to a flower pot, yard or garden.



GrowingGreat Veggies & Fruits

A National STEM Education Program

sponsored by



What Do You Think?

What items in your house could be added as "green" material in compost?
Are there any items in your house that could be "brown" compost materials?
What happened when you used a shovel to mix your compost?
Did it look the same or different before and after mixing?

PARENT PAGE

Your child was a scientist today – making hypotheses, solving problems, measuring, recording data, learning about veggies and fruits, and eating their experiments!

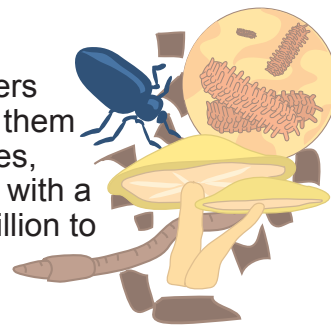


When you compost, you are creating nutrient-rich soil. Healthy soil means healthy plants: the more nutrients in the soil, the more nutrients in the foods grown out of that soil. So let's compost to keep our world and ourselves happy and healthy!

-- Sarah Minkow MS, RD



Who are our compost helpers? Decomposers! Some decomposers break down organic materials physically by chewing and tearing them into smaller pieces. This group includes ants, beetles, worms, flies, slugs, snails, and spiders. Other decomposers can only be seen with a microscope and include many bacteria and fungi. There are 1 million to 1 billion bacteria microorganisms present per gram of compost!



At the Library



Check out these books to meet some garden heroes and see composting in action. Farmer Will Allen and the Growing Table by Jacqueline Briggs Martin.

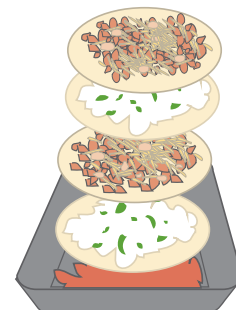
Readers to Eaters, 2016.

Our Community Garden by Barbara Pollak. Aladdin/Beyond Words, 2004.

Tortilla Lasagna

Just like we layered our compost, this recipe features delicious layered materials.

- 1 Tbsp. olive oil
- 1 Tbsp. chopped fresh thyme [or 1 tsp. dried thyme]
- 2 cans (14.5oz.each) Del Monte® Diced Tomatoes, not drained
- 1 can (8oz.) Del Monte® Tomato Sauce
- 1 cup ricotta cheese
- 1 pkg. (10oz.) frozen chopped spinach, thawed, and squeezed of excess liquid
- 4 flour or whole wheat tortillas, 9 to 10-inch
- 2 cups shredded cooked chicken
- 3 cups (12oz.) shredded mozzarella



Preheat oven to 375°F. Heat oil in a medium saucepan over medium-high heat. Add thyme and cook 30 to 60 seconds until fragrant. Add diced tomatoes and tomato sauce. Bring to a boil. Reduce heat to medium-low and cook, uncovered, 5 to 10 minutes or until sauce thickens slightly. Combine ricotta and spinach in a bowl. Spread 1/4 cup tomatoes evenly on the bottom of a 9x9-inch baking dish. Place one tortilla over tomatoes. Spread 1/3 of ricotta mixture over tortilla. Top with 1/3 of chicken, 1/4 of cheese and 1/2 cup tomatoes. Repeat layers two more times, ending with the fourth tortilla on top. Press lightly before spreading remaining 1 cup sauce evenly over top. Bake 25 minutes. Sprinkle with remaining 3/4 cup cheese and bake 5 to 10 minutes until cheese is melted. Let stand 5 minutes.



Written by Meghan Nealon, Colleen Cocchi and Christina Soff

Illustrated by Dennis Smith

Museum Partner: Carnegie Science Center



GrowingGreat is a California nonprofit with the mission to empower children to make healthy food choices through hands-on science and garden education. Does your school have a garden or nutrition education program? Email info@growinggreat.org for more information.