



# EXPLORE IT!

## Make Your Own Mini Compost

### Subject: Decomposers, Compost at Home

Create your own compost bin and observe decomposers in action! Learn how nature recycles garbage to create nutrients for living things. (Some adult supervision recommended.)

### Materials List

1. 3 2-liter bottles or plastic sealed containers
2. 1 bottle cap
3. Scissors or razor blade with parent supervision
4. Hole poking device (ice pick, needle nose pliers, sharp scissors)
5. Tape
6. Hammer and nail

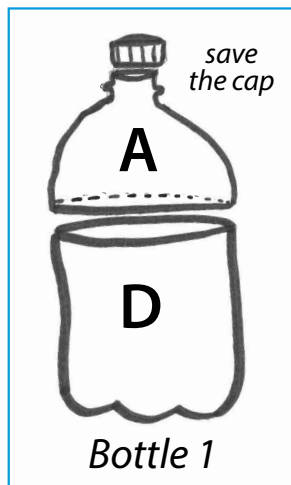
**Grade:** 5th

**Time:** 1 hour + observation

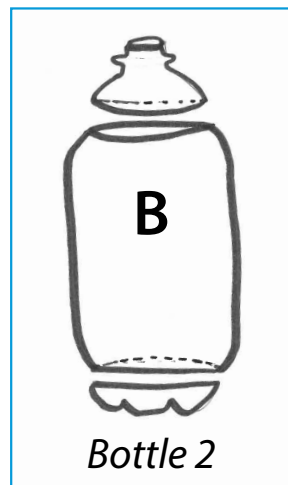
**Vocabulary:** decomposers, compost, food scraps, soil, fungi, bacteria

**NGSS:** 5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers and the environment.

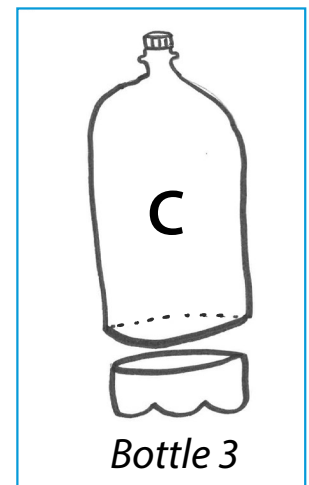
### Instructions



1. Remove labels from all 3 bottles.
2. Cut the top off (A) bottle #1 just below the "shoulder." Bottom piece (D) should have straight sides.



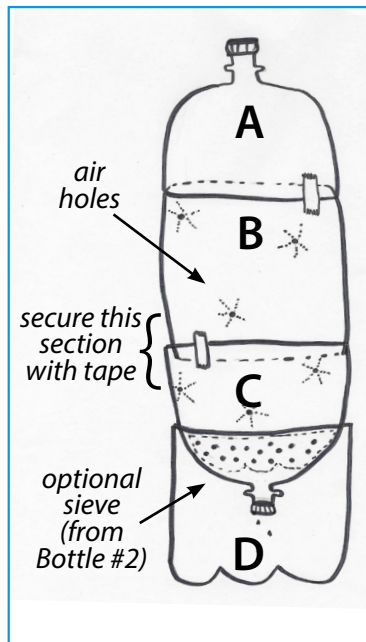
3. Cut the top off (B) bottle #2 above the "shoulder" and the "hip." The resulting cylinder has two tapered ends.



4. Cut the bottom off (C) bottle #3 above the "hip" (cylinder has a straight end).

*See other side*

# Make Your Own Mini Compost



## Instructions *continued*

5. Poke air holes in sections (B) and (C).
6. Invert bottle section (C) and stack into section (D). (Optional: Add the top "funnel" of bottle 2 with holes poked all over it to create a drip sieve).
7. Stack (B) on top and secure with tape.
8. Top with (A) and secure with tape.
9. Add holes to the bottom cap by using a nail and hammer to gently puncture it. Be careful not to harm any surfaces when using hammer and nail.
10. Add ingredients by lifting your lid (A). To keep a compost ecosystem balanced and happy, mix an equal amount of "greens" (kitchen scraps) and "browns" (dried leaves, soil, shredded paper).
11. Add only enough water to begin dripping after about 1 minute. Add small amounts at a time and wait for the drip before adding more (if no drip after 1 minute). Once it drips out the bottom, stop adding water.
12. Store your column in a location with consistent temperature and no direct sunlight (the darker the better). You'll start to see mold and other evidence of decomposers within the first few days after filling your column. If left for 2 months, you'll see soft organic materials take shape as compost!
13. Experiment with what you put in your column. Just keep in mind that anything that didn't come directly from the soil (fruits and veggies) can produce odors as it rots. Adding more organic material (leaves and grass) on top of other foods can keep odors down.

## Table Talk

1. If you composted all your food scraps, how much room would you save in your trash can every week?
2. Where can you use your compost?

