



HOMESCHOOL SCIENCE EXPERIMENT

OBSERVING DECOMPOSITION IN A SMALL COMPOST BIN



Name: _____ Date: _____



BACKGROUND

Decomposition is the process where dead plants, food scraps, and other organic materials are broken down by decomposers like bacteria, fungi, and insects. This turns the material into simpler substances and creates nutrient-rich compost that helps plants grow.



MATERIALS

- Small lidded bin or container (with or without air holes)
- Kitchen scraps (fruit/vegetable peels, coffee grounds, eggshells, etc.)
- Dry leaves or shredded paper
- Small amount of soil or finished compost (to introduce decomposers)
- Spray bottle with water
- Spoon or small trowel
- Thermometer (optional)
- Notebook or lab sheet (this page)
- Magnifying glass (optional)



QUESTION

How does organic material change over time in a compost bin?



PROCEDURE

1. Add a layer of dry leaves or shredded paper to the bottom of the bin.
2. Add a layer of kitchen scraps.
3. Sprinkle a small amount of soil or finished compost over the scraps.
4. Lightly mist with water. The pile should be moist like a wrung-out sponge, not soaking wet.
5. Close the lid.
6. Place the bin in a room-temperature spot, out of direct sunlight.
7. Observe the compost every 2–3 days for 2–4 weeks. Record your observations in the table below.
8. Stir the compost gently once a week to add air and help decomposition.

Safety Note: Always wash your hands after handling compost materials.

OBSERVATION TABLE

Date	What do you (color, size, pieces)	Smell (none, mild, (strong, etc.)	Temperature (optional)	Notes (insects, mold, other changes)



OBSERVATIONS & DRAWINGS

Use this space to draw or write about what you observe over time.



THINK FURTHER

What would happen if you added meat or dairy to the compost?
Why do you think that is?



ANALYSIS QUESTIONS

1. What changes did you notice in the compost over time?

2. What do you think caused these changes?

3. Were there any living things in your compost? If so, what did you see?

4. How could you use the finished compost?