

Worm bin observation worksheet

Composting is a process of decomposition in which worms, microbes, and fungi break down organic material and recycle nutrients back into the soil. Scientists observe compost systems over time to understand how temperature, moisture, airflow, and food sources affect decomposition.

Use this worksheet to record observations about your worm bin over several days or weeks. Track changes in temperature, smell, moisture, and how quickly different food scraps break down. Look for evidence of decomposition, including changes in texture, size, and worm activity.

Bin setup observations

Observation	Notes
Size and type of bin used	
Type of bedding materials used	
Type and weight, volume, or number of worms added	
Starting smell (earthy, damp, sour, clean, etc.)	
Amount of water added or level of dampness observed	
Starting temperature (optional)	

Daily or weekly observations

Date	Type of food added	Weight of food scraps	Temperature (optional)	Moisture level	Smell	Visible changes	Worm activity

Additional notes, observations and sketches 

Breakdown observations

Food scrap item	Date added	Date mostly broken down	Days to decompose	Notes

Observation questions 🤔

1. Which types of food scraps broke down the fastest? Why do you think that was?
2. Did your worms seem to prefer certain foods over others?
3. Why is moisture balance important in a compost bin?
4. Did the moisture level of your worm bin change as the scraps decomposed? If you used a thermometer, did the temperature change? Did you notice any patterns?
5. How do you think composting might be helpful to your community?

Temperature graph 🌡️ (optional)

Track your worm bin temperature over time and create a graph showing how it changed after adding new food scraps.

