



Module 1: Foundations of Sustainable Agri-Food Systems & Circular Economy

Hands-On Activity: Our Micro Farm

Data Collection Worksheet

Grouping: Pairs or small groups (3–4)

Time: 25-40 minutes (initial setup), weekly monitoring for growth and soil data

Materials:

- Cafeteria food scraps
- Compost bin or container
- School garden bed or large pots with soil
- Seedlings or seeds (e.g., lettuce, herbs, radishes)
- Soil moisture meter or ruler
- Notebook or printed data sheet
- Hand trowels and gloves

Objective:

Design, build, and monitor a campus “micro-farm” that closes the nutrient loop from cafeteria waste to soil to plants and back to the cafeteria.

Your Task:

You’re an agroecologist for the day. Your job is to prove how waste can become food — and back again — right on campus. Your goal is to show that healthy soil leads to healthy plants, healthy lunches, and less waste. Work with your group to maintain the micro-farm and track data for 4–6 weeks.

Start Date: _____

Harvest Date: _____

Bed / Plot Description (Draw / Write):

Weekly Data Log:

Week	Plant Height (cm)	Water Use (mL)	Soil Moisture (%) or Wet / Dry	Worm Count	Compost Stage (Fresh / Decomposing, Finished)	Notes/observations
1						
2						
3						
4						
5						
6						

Harvest Data:

Crop Type	Yield Weight (g)	Yield Weight (kg)	Taste / Quality Notes	Compost Returned (g)

Skills You'll Use:

- Measuring plant growth and soil health
- Linking inputs to outputs in a closed loop
- Evidence-based justification

Reflection and Analysis:

1. What would you change next time to improve your yield?

2. Which factor (moisture, compost quality, worm activity) seemed most linked to plant health? Why?

3. How did your micro-farm show a “closed loop” system?