Lab Report – Cafeteria Waste Audit

Group Members:
Date(s):
Class/Period:
Location:

Objective
What are you trying to find out in this investigation?
(Example: To compare water use and plant growth across different water-smart techniques and evaluate which method is most efficient while maintaining healthy plants.)

Safety Precautions
List at least three safety or hygiene rules you followed during this activity.

1.

2.

3.

Materials Used
List all equipment, amendments, and supplies used during the experiment.

- Small container/pot or hydroponic bottle/wick starter
- Common seeds (same crop across teams)
- Soil or soilless mix
- Technique kit: ☐ Compost/Biochar ☐ Mulch/Cover ☐ Drip ☐ Hydroponics
- Measuring cups (mL)
- Labels/markers, ruler (cm)
- Optional: soil-moisture meter, scale, timer
- Gloves, paper towels

Procedure Summary
Briefly describe the main steps your group followed to set up and maintain the water-smart system.

Data Collection
Weekly Log

Week	Water Used (mL)	Plant Height (cm)	Soil Moisture / System Notes	Time / Cost Notes
1				
2				
3				
4				
5				

Totals: Water = _____ mL • Time spent = _____ min • Extra costs = $_____

Efficiency Metrics

- Total growth = Final height − Initial height = _____ cm
- Water-Use Efficiency (WUE) = Total growth ÷ Total water used = _____ cm/L
- Optional: % water saved vs. class average soil control = _____ %

Observed Benefits & Challenges

Observed Benefits	Observed Challenges

Cross-Group Comparison

Group	Strategy	Total Water (mL)	Final Height (cm)	Benefit	Challenge	Notes

1						
2						
3						
4						

Guiding Questions

1. Which water-smart technique used the least water while keeping plants healthy?

2. Which method showed the most plant growth?

3. What challenges did your group face in applying water efficiently?

4. How did your chosen method compare to other groups' methods?

5. How does this method connect to the "3 Levers" of water-smart agriculture?

Reflection and Analysis

1. Summary of Findings
   Describe what you discovered about water use and plant growth for your method.

2. Impacts
   Explain how water-smart plant growth affects:

- Environment:

- Time & labor:

- Resource use/cost:

3. Recommendations
   If you could advise a farmer or community gardener, what two actions would you recommend to save water while maintaining healthy plants?

- Action 1: _____
  Why would this help? _____

- Action 2: _____
  Why would this help? _____

Conclusion
Summarize what you learned about water-smart plant growth and how different techniques can improve efficiency, crop health, and sustainability.

Appendix
Attach:

- Photos or sketches of your setup and plant growth
- Completed weekly logs
- Graphs or charts of water use vs. growth
- Any supporting calculations