



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

Hands-On Activity C: Low-Impact Diet Challenge

1

Student Data Collection Worksheet for Module 1 HOA C

Name: _____ Class/Period: _____

Date: _____

Instructions: Use this journal to record data for your Low-Impact Diet experiment. There are sections for your **Baseline Diet** (before the change), your **Daily Logs** during the challenge, and your **Post-Experiment Calculations** and notes. Fill in each part as you progress. Be honest and detailed; this information will be the basis for your analysis and lab report.

Baseline Diet Record

(Record your typical consumption of the item/behavior you're changing, before you start the challenge. Use 2–3 days of tracking or an estimated average week.)

- **Target of Change:** _____
(E.g., "Beef meals," "Plastic snack wrappers," "Sodas," etc.)

- **Baseline Observation Period:** _____
(Dates or description, e.g., "Mon–Wed of this week" or "typical week estimate")

- **Baseline Consumption/Usage:**
 - Day 1: _____
 - Day 2: _____
 - Day 3: _____
 - *(Add more days if needed)*

- Summarize baseline total over 1 week (or normalized to 1 week):
 - **Approx. # of servings/units per week:** _____
 - **Details:** *(Describe the baseline pattern: e.g., "About 4 beef servings per week (2 burgers, 1 steak, 1 meatball sub)" or "Typically 7 soda bottles (12 oz each) per week."*



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

Hands-On Activity C: Low-Impact Diet Challenge

Daily Experiment Log

(Use one section for each day of your 5–7 day challenge. Record what you ate/did, and reflect on how it went.)

Day 1 – Date: _____

- **Meals & Snacks log:** *(What did you eat today? Highlight any substitutions related to your challenge.)*
 - Breakfast: ...
 - Lunch: ...
 - Dinner: ...
 - Snacks/Drinks: ...

- **Followed the Low-Impact Rule?** Yes / No (circle one).
*(Explain: If yes, what did you do to stick to it? If not, what happened? E.g., “Yes, no red meat, choose veggie pizza for dinner.” / “No, I ended up drinking a soda at the movie.”)**

- **Challenges or Notable Observations:**
(How did you feel? Any difficulties or surprises?)
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- **Notes/Thoughts:** *(Any other comments on the day? For instance, “Craved a burger when my family had one, but resisted.” Or “Found a great recipe for lentil soup, satisfying!”)*
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Module 1 – Foundations of Sustainable Agri-Food Systems & Circular Economy

Hands-On Activity C: Low-Impact Diet Challenge

Day 2 – Date: _____

- **Meals & Snacks log:** *(What did you eat today? Highlight any substitutions related to your challenge.)*
 - Breakfast: ...
 - Lunch: ...
 - Dinner: ...
 - Snacks/Drinks: ...
 - **Followed the Low-Impact Rule?** Yes / No (circle one).
*(Explain: If yes, what did you do to stick to it? If not, what happened? E.g., “Yes, no red meat, choose veggie pizza for dinner.” / “No, I ended up drinking a soda at the movie.”)**
 - **Challenges or Notable Observations:**
(How did you feel? Any difficulties or surprises?)
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 - **Notes/Thoughts:** *(Any other comments on the day? For instance, “Craved a burger when my family had one, but resisted.” Or “Found a great recipe for lentil soup, satisfying!”)*
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Module 1 – Foundations of Sustainable Agri-Food Systems & Circular Economy

Hands-On Activity C: Low-Impact Diet Challenge

Day 3 – Date: _____

- **Meals & Snacks log:** *(What did you eat today? Highlight any substitutions related to your challenge.)*
 - Breakfast: ...
 - Lunch: ...
 - Dinner: ...
 - Snacks/Drinks: ...

 - **Followed the Low-Impact Rule?** Yes / No (circle one).
*(Explain: If yes, what did you do to stick to it? If not, what happened? E.g., “Yes, no red meat, choose veggie pizza for dinner.” / “No, I ended up drinking a soda at the movie.”)**

 - **Challenges or Notable Observations:**
(How did you feel? Any difficulties or surprises?)
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 - **Notes/Thoughts:** *(Any other comments on the day? For instance, “Craved a burger when my family had one, but resisted.” Or “Found a great recipe for lentil soup, satisfying!”)*
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Module 1 – Foundations of Sustainable Agri-Food Systems & Circular Economy

Hands-On Activity C: Low-Impact Diet Challenge

Day 4 – Date: _____

- **Meals & Snacks log:** *(What did you eat today? Highlight any substitutions related to your challenge.)*
 - Breakfast: ...
 - Lunch: ...
 - Dinner: ...
 - Snacks/Drinks: ...

 - **Followed the Low-Impact Rule?** Yes / No (circle one).
*(Explain: If yes, what did you do to stick to it? If not, what happened? E.g., “Yes, no red meat, choose veggie pizza for dinner.” / “No, I ended up drinking a soda at the movie.”)**

 - **Challenges or Notable Observations:**
(How did you feel? Any difficulties or surprises?)
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 - **Notes/Thoughts:** *(Any other comments on the day? For instance, “Craved a burger when my family had one, but resisted.” Or “Found a great recipe for lentil soup – satisfying!”)*
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Module 1 – Foundations of Sustainable Agri-Food Systems & Circular Economy

Hands-On Activity C: Low-Impact Diet Challenge

Day 5 – Date: _____

- **Meals & Snacks log:** *(What did you eat today? Highlight any substitutions related to your challenge.)*
 - Breakfast: ...
 - Lunch: ...
 - Dinner: ...
 - Snacks/Drinks: ...

- **Followed the Low-Impact Rule?** Yes / No (circle one).
*(Explain: If yes, what did you do to stick to it? If not, what happened? E.g., “Yes, no red meat, choose veggie pizza for dinner.” / “No, I ended up drinking a soda at the movie.”)**

- **Challenges or Notable Observations:**
(How did you feel? Any difficulties or surprises?)
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- **Notes/Thoughts:** *(Any other comments on the day? For instance, “Craved a burger when my family had one, but resisted.” Or “Found a great recipe for lentil soup, satisfying!”)*
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Module 1 – Foundations of Sustainable Agri-Food Systems & Circular Economy

Hands-On Activity C: Low-Impact Diet Challenge

(If your experiment goes 7 days, continue for Day 6 and Day 7. If not, you can leave the extra days blank or use them for additional notes.)

Day 6 – Date: _____ *(if applicable)*

- **Meals & Snacks log:** *(What did you eat today? Highlight any substitutions related to your challenge.)*
 - Breakfast: ...
 - Lunch: ...
 - Dinner: ...
 - Snacks/Drinks: ...

- **Followed the Low-Impact Rule?** Yes / No (circle one).
*(Explain: If yes, what did you do to stick to it? If not, what happened? E.g., “Yes, no red meat, choose veggie pizza for dinner.” / “No, I ended up drinking a soda at the movie.”)**

- **Challenges or Notable Observations:**
(How did you feel? Any difficulties or surprises?)
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- **Notes/Thoughts:** *(Any other comments on the day? For instance, “Craved a burger when my family had one, but resisted.” Or “Found a great recipe for lentil soup, satisfying!”)*
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Module 1 – Foundations of Sustainable Agri-Food Systems & Circular Economy

Hands-On Activity C: Low-Impact Diet Challenge

Day 7 – Date: _____ (if applicable)

- **Meals & Snacks log:** (What did you eat today? Highlight any substitutions related to your challenge.)
 - Breakfast: ...
 - Lunch: ...
 - Dinner: ...
 - Snacks/Drinks: ...

- **Followed the Low-Impact Rule?** Yes / No (circle one).
(Explain: If yes, what did you do to stick to it? If not, what happened? E.g., “Yes, no red meat, choose veggie pizza for dinner.” / “No, I ended up drinking a soda at the movie.”)*

- **Challenges or Notable Observations:**
(How did you feel? Any difficulties or surprises?)
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- **Notes/Thoughts:** (Any other comments on the day? For instance, “Craved a burger when my family had one, but resisted.” Or “Found a great recipe for lentil soup, satisfying!”)
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Module 1 – Foundations of Sustainable Agri-Food Systems & Circular Economy

Hands-On Activity C: Low-Impact Diet Challenge

9

Post-Experiment Summary & Calculations

After completing the challenge, use this section to summarize what you achieved and calculate the environmental impacts:

- **Total Actual Consumption During Challenge (week):**
 - _____ (units of target item consumed during the experiment week)
(E.g., “0 servings of beef” or “2 bottles of soda” or “1 snack wrapper” etc.)
- **Baseline Consumption (equivalent period):**
 - _____ (units of target item in a typical week, from baseline data)
- **Total Reduction Achieved:**
 - _____ (Baseline minus Challenge consumption)
(E.g., “Avoided 4 servings of beef” or “5 fewer bottles used than usual.” If you had a slip-up, account for that: e.g., baseline 7 sodas → had 1 soda during challenge = 6 fewer sodas than baseline.)
- **CO₂ Emissions Avoided:**
 - Calculation: _____
 - **Result:** ~ _____ kg CO₂ not emitted
(Show how you got it. E.g., “Avoided 1.5 kg beef × 27 kg CO₂/kg = 40.5 kg CO₂.” If not applicable, write N/A.)
- **Water Use Avoided:**
 - Calculation: _____
 - **Result:** ~ _____ liters of water saved
(E.g., “1.5 kg beef × 15,000 L/kg ≈ 22,500 L.” If not applicable for your action, write N/A.)
- **Waste Reduced:**
 - _____ fewer pieces of waste (approx. _____ grams) avoided.
(E.g., “Avoided 7 plastic snack wrappers, about 35 g of plastic.” If your action wasn’t about solid waste, you can skip this or write N/A.)



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

Hands-On Activity C: Low-Impact Diet Challenge

10

- **Other Observations:** *(Optional)*
 - Did you notice any *indirect* impacts? (For instance, “Eating no beef also meant I produced less greasy waste in cooking” or “Cooking from scratch generated some compostable peels which I composted.”)

Use the above results to help write your report. Double-check any math. These numbers will support your statements about impact in your Discussion.

Reflection Notes (for Discussion)

(Use this space to jot down brief answers or bullet points for the reflection questions, to organize your thoughts before writing the report.)

- **Biggest Challenge of the Week:** ...
- **What I Learned About My Habits:** ...
- **Health or Cost Effects Noticed:** ...
- **Feelings About the Change (easy, hard, proud, etc.):** ...
- **If Everyone Did This:** ... *(What might happen?)* ...
- **Connections to Class Concepts:** ... *(e.g., “This relates to the concept of circular economy because...”)* ...
- **Would I Do This Long-Term?** ... *(Why or why not?)* ...

(These notes are just for you, you can write in fragments. When writing the final report, you’ll turn these thoughts into paragraphs.)

End of Student Journal – Make sure you’ve filled everything out as you complete the project. Your teacher may collect this journal or ask you to include some of this data in your report appendix. Good record-keeping will make your analysis stronger!