



Module 2: Waste-to-Resource Strategies in Agri-Food Systems

Think-Pair-Share Activity A: Dear Principal, Reimagining Waste

Red Notes

Lesson A

Grouping: Pairs or small groups (3–4)

Time: 25-30 minutes

Materials:

- One worksheet per student (or one per pair) — this page.
- Pens / markers; whiteboard or chart paper for class synthesis

Objective:

Students will learn to reimagine waste at their school by exploring five possible waste-to-resource pathways. They will identify potential benefits, anticipate challenges, and propose solutions. Students will then collaboratively draft a short persuasive letter to the principal, practicing evidence-based communication and civic engagement.

Instructions:

1. Each student chooses one waste pathway and jots notes on its potential benefit, one challenge, and a possible solution.
2. Groups share their individual notes, decide on one idea (or a combination), and prepare a short pitch with key parts (opening, proposal, obstacle, solution, closing).
3. Using the group pitch, students draft a short persuasive letter to the principal explaining their idea, its benefits, and how to address challenges.
4. Each group posts or reads their letter aloud. The teacher synthesizes common themes and highlights innovative ideas.

Your Task:

Your task is to select, refine, and communicate one waste-to-resource solution for the school. Work together to build a strong argument and draft a persuasive letter.

Step 1: Choose a Pathway (Individual Notes)

Circle one: **Compost** | Bokashi | Anaerobic Digester | Biochar | Insect Bioconversion

1. Benefit for our school / community:

Provides natural fertilizer for the school garden, reduces waste going to landfill, and creates hands-on learning opportunities for students.

2. Challenge we might face:

Compost bins need space and regular maintenance, and may create odor or attract pests if not managed well.

3. Possible solution:

Start small with 1–2 bins located near the school garden, use a rotating student volunteer schedule to manage the compost, and teach proper composting techniques to avoid odor or pests.

Step 2: Group Pitch (Discussion)

As a group, discuss how the pitch should be formulated.

Part of Pitch	Notes
Opening (Why waste is a problem at school)	Our school produces large amounts of food waste every week, most of which ends up in the trash.
Proposal (Our method + benefit)	Composting can turn this waste into natural fertilizer for our school garden while cutting down landfill waste.
Obstacle (One challenge)	We may not have much space for compost bins, and maintenance takes effort.
Solution (How to overcome it)	Begin with a small pilot compost bin, near the garden, and assign rotating student volunteers to help maintain it.
Closing (What we want the principal to do)	Support a compost pilot program and provide a space near the school garden to get started.

Step 3: Letter to the Principal

Use your group notes to draft a persuasive letter to the principal.

Sentence Starters (Optional):

- Dear Principal [Name], our school produces a lot of waste every week...
- We believe this waste could be turned into [energy/fertilizer/animal feed/etc.] instead of going to the landfill.
- The benefit of this approach is...
- One challenge we might face is... but this can be solved by...
- We ask you to consider trying this idea at our school because...
- Sincerely, _____

Dear Principal Lopez,

Our school produces a lot of food waste every week, and most of it ends up in the trash. We believe this waste could be turned into fertilizer through composting instead of going to the landfill. The benefit of this approach is that compost would improve our school garden's soil, reduce greenhouse gas emissions, and give students a chance to learn by doing. One challenge we might face is finding space and time to manage compost bins. However, this can be solved by starting with a small bin near the garden and creating a student volunteer schedule for upkeep. We ask you to consider supporting a compost program at our school because it will save money on fertilizers, build student engagement, and show our community that sustainability is possible.

Sincerely,

The Green Team

Reflection:

1. Which waste pathway do you think would make the biggest difference at your school, and why?

Composting, because it's simple, inexpensive, and creates fertilizer we can use right here in our garden.

2. If you were the principal, what evidence would convince you to try this idea?

Knowing that composting reduces landfill waste, lowers greenhouse gas emissions, and that other schools have successfully managed it.

3. How does turning waste into a resource connect to larger sustainability goals beyond school (e.g., community, climate, food systems)?

Composting models a circular economy where waste becomes input again. It reduces emissions from landfills, improves soil health, and helps the community move toward climate-friendly practices.

Skills You'll Use:

- Systems thinking (connecting school waste to community solutions)
- Problem-solving (identifying challenges + solutions)
- Persuasive communication (pitch + letter writing)
- Collaboration & synthesis (moving from individual ideas to a group product)

Example:

Dear Principal Lopez,

Our school produces a lot of food waste every week, and most of it ends up in the trash. We believe this waste could be turned into fertilizer through composting instead of going to the landfill. The benefit is that compost would improve our school garden's soil and reduce greenhouse gas emissions. One challenge we might face is space for compost bins, but this can be solved by starting with a small pilot project near the garden. We ask you to consider trying this idea at our school because it will save money on fertilizers, engage students in hands-on learning, and show our community that sustainability is possible.

Sincerely,
The Green Team