

Conducting a Waste Audit

eco-cycle

Snapshot

A waste audit to investigate discarded items in the trash, recycling, and/or compost bins around your school will reveal items that are consistently sorted correctly or incorrectly.



<https://bit.ly/eco-cycle-zero-waste-schools-guide>

Objective: Students will determine which items in the school waste stream need specific attention when educating the school community about the proper sorting of their waste

Age Group: 4th-12th grade

Setting: Cafeteria

Project Duration:

- 30-50 minutes for each audit conducted
- Follow-up time varies

Materials:

- 3-6 large tarps
- Disposable gloves (1 pair/participant)
- Newspapers
- Category signs
- Sorting guidelines /examples of items
- Cleaning supplies
- Record sheets
- Clipboards and pencils
- Additional adults for assistance

Why This Project Matters:

Collection programs for recycling and composting can only be effective if items are sorted correctly. A load of recyclable or compostable items that contains too many contaminants may be rejected by the sorting facility and sent to the landfill. In addition, when large amounts of recyclable or compostable items are being placed in trash receptacles, waste-reduction programs lose much of their impact and value.

Project Summary:

A waste audit is a tool for determining how well the collection system is going and where more education might be needed. Before a school begins a collection program, a student group may conduct a waste audit to determine a baseline from which to plan next steps. Another waste audit after the recycling or composting collection is implemented, and then again annually, will help determine participation and contamination levels. All receptacles (trash, recycling, and compost) should be audited.

Implementation:

Baseline waste audit (to be conducted before launching recycling or compost collections):

1. Ask custodians to gather 4 large bags of trash, each from a different area of the school: cafeteria, kitchen, hallways, classrooms (collection of several classrooms).
2. Cover the floor or 3-4 large tables with tarps.
3. Place a layer of newspapers on top of each tarp.
4. Arrange a set of category signs (to create a sorting station)

for each area where a team of student sorters will work (see sample signs). Each team will sort the waste from a different part of the school.



5. Assign student teams to each station/waste stream category. (Cafeteria and classroom waste is diverse enough that having two teams sorting each type is best.) Supply a pair of disposable gloves to each participant, instructing them not to remove the gloves until you announce that the audit and clean-up are finished.
6. If your school composts restroom waste, this will not be sorted. Remind students, however, that restroom waste should only contain paper towels and facial tissue, no plastic, metal, or glass items. Next, demonstrate the audit procedure by sorting a few handfuls from a bag into piles next to the proper category signs at one station. Hand out guidelines for your school's program and/or show real examples of items. Demonstrate how to use the data sheet to record data (see sample data recording sheet).
7. Assign one student to record the sort results for each team.
8. Have students begin sorting while receiving supervision and assistance from adults. Go over results when done.
9. During clean-up, have students place items into the correct bins (soiled newspaper goes in compost), wipe down tarps and tables, and dispose of gloves in the trash.
10. Ask students to share their findings and anything significant they noticed. Discuss what messages to emphasize when the new collection program begins.

Follow-up waste audit (to be conducted 3-6 months after the baseline audit, then annually to assess participation and contamination levels):

11. Follow the same steps as above, this time making sure to sample the trash, recycling and/or compost bins.
12. After students review their data, discuss a plan to educate the school community about their findings.

Assessment:

Document any changes in the sorting accuracy of the school community over time by comparing audit results.

Related Activities:

- Schoolwide Recycling Collection – Chapter 18
- Backyard Composting at School – Chapter 24
- Schoolwide Compost Collection – Chapter 25
- Reinforcing Collection Programs Over Time – Chapter 27
- Reporting Progress – Chapter 28

Extensions:

- To educate the school community and improve sorting accuracy, create a campaign using multiple tools to inform them about which materials belong in each bin. Ask the student group to spread the word using skits, videos, posters, announcements, classroom prize incentives, waste-station monitoring in the lunchroom, etc.



Sample Category Signs

Recyclables:

Cardboard/Paperboard

Recyclables:

Newspaper/Magazines

Recyclables:

Containers

Recyclables:

Classroom Paper

Compostables:

Food Waste

Compostables:

Non-recyclable Paper

Landfill:

Food Packaging

Landfill:

Other

Sample Waste Audit Data Recording Sheet

Date: _____ School: _____

- Location of waste source (circle one): **Classroom (#s_____)** **Hallways** **Cafeteria** **Kitchen**
- Type of waste being sorted (circle one): **Trash** **Recycling** **Compost**

Please examine and sort the trash, recycling, or compost sample. In the table below, write down the materials that were found correctly or incorrectly sorted in each waste category.

	Correct	Incorrect
Recycling: Drink Containers <ul style="list-style-type: none"> • <i>milk/juice cartons, juice boxes</i> • <i>steel containers</i> • <i>aluminum cans</i> • <i>aluminum foil & trays</i> • <i>#1-7 plastic bottles</i> • <i>glass bottles/jars</i> 		
Recycling: Paper <ul style="list-style-type: none"> • <i>cardboard</i> • <i>paperboard</i> • <i>newspaper</i> • <i>magazines/book orders</i> • <i>light & white-colored:</i> <ul style="list-style-type: none"> ○ <i>paper</i> ○ <i>sticky notes</i> ○ <i>envelopes</i> 		
Compost: <ul style="list-style-type: none"> • <i>food waste</i> • <i>paper towels, napkins, tissues</i> • <i>non-recyclable paper:</i> <ul style="list-style-type: none"> ○ <i>construction paper</i> ○ <i>dark/neon paper</i> ○ <i>brown envelopes</i> ○ <i>paper bags</i> ○ <i>small scraps</i> 		
Trash: <ul style="list-style-type: none"> • <i>food packaging/wrappers</i> • <i>gum/stickers</i> • <i>plastic-coated paper products</i> • <i>straws/plastic bags/wipes</i> • <i>frozen food containers</i> • <i>juice pouches</i> • <i>recyclables with food in them</i> • <i>disposable utensils, plates, cups</i> • <i>other:</i> 		