

MMSM LESSON PLAN

WASTE AUDIT



Introduction

A school waste audit is an activity used to measure how much waste is being generated in a school. It will show students how much of their waste can be placed in other bins for further use like recycling, reuse, and compost. It's an eye-opening experience for all!

Grade Level

Middle to Senior Years – Grade 5+

Thinking Concepts and Skills

- Learning which items go in the recycling bin, garbage, and compost bin.
- Help students discover how your school can make an important environmental impact by properly sorting waste.
- Use math skills to weigh and calculate waste groupings.

Acquire

Materials needed: large tongs, gloves, giant tarp, recycling/garbage, scale, clear large bags for recycling and black large bags for garbage (for ease of weighing after all is sorted), safety glasses (if available) whiteboard and markers or other writing surface for graphing.

Activate

1. Obtain permission to conduct the audit in the cafeteria, gym, or classroom. Work with your custodian to save and collect the recycling and garbage from previous day (never use bathroom trash).
2. Collect and label the location of each bag from all classrooms, cafeteria, gymnasium etc.
3. Gather students and sit them around tarp. Explain that today, they will help you go through some of the recycling and waste created by their school.
4. Discuss category examples (reusables, recyclables, compostables, and landfill) to ensure proper understanding. If you are unsure, check out the Recyclepedia.
5. Empty the contents of each bag separately on the tarp and sort into the different waste categories. Ask students to make note of observations (types of food, pop cans, etc.) and correct as needed.
6. Help students sort through the material, putting the correct materials in correct corners. If all students want to participate, cycle them through, helping a few minutes at a time. Do not add gloves to their trash pile as it will slightly affect weighing at the end.
7. Continue with waste hierarchy discussion on what's the best practice to do with "that thing in your hand." Can items be reduced, reused, recycled, or composted before being put in the trash can?
8. Put the materials from each category in a separate bag, weigh them individually, and talk about the waste hierarchy (reduce, reuse, recycle, compost, and landfill).

9. Record the results on the tracking sheet. Graph their numbers on the board and do the math. Compare the original garbage and recycling weights with the new sorted weights and marvel at the difference.
10. Discuss what they throw away every day that could be put to other uses.
11. Challenge students to come up with ways to reduce waste production in their own lives.
12. Clean up – Return non-recyclables to garbage cans and sort recyclables into recycling bins and compost the compostable materials if possible. Wash tarp and sweep the floor.

Extension Activities

1. Math is used in this lesson by subtracting weights from original measurement. You could go further with it by asking the question: “Based on the numbers we discovered in the Audit today, how much waste would we have thrown out each year vs how much could we have saved assuming every day was the exact same.”
2. Writing could be introduced using prompts such as “What did you learn from the Audit today?” or “From what you learned during the Audit, what could I do to reduce the amount I throw away?”
3. Art could be any number of projects, including having students make signs to put around disposal areas to illustrate what can go in each bin.
4. Group discussion:
 - a. Do you think your school is doing a good job at reducing the amount of garbage it generates?
 - b. What waste reduction programs exist at your school?
 - c. How can you improve your existing recycling or composting programs?
 - d. What additional initiatives can be done to reduce the amount of materials going to the landfill?

RECYCLABLES:

- PAPER
- ALUMINUM
- STEEL
- GLASS
- CARDBOARD
- PLASTIC
- CARTONS

