

Purpose:	We all generate solid waste, but seldom visualize the magnitude of it.
Subjects:	Science, Math, Social Studies & Health
Objective:	Students will complete a research project to measure the amount of the garbage collected in one day and classify the contents of it.
Materials:	A “form” for each group to record findings; a scale to measure pounds; rubber gloves; large sheet of plastic per group; garbage - either from lunchroom or entire school.

1. Organize the class into research groups. Each group needs to have at least five members: identify a recorder; two weighers and the rest are sorters/counters. For the activity to work best, the recorders and the weighers must be careful, precise students.
2. Give each recorder a form (see reverse side). Also make sure that the recorder has a hard surface to write on, such as a clipboard, and a pencil.
3. Lay the plastic sheets on the floor and dump the garbage onto the plastic. Have students put on plastic gloves. Explain that they are to sort the garbage into the six categories listed on the Recorder’s form, review categories with group.
4. First, count the pieces in each category and record that number. Second, have the materials for each category weighed. That number is to also be recorded. Be sure to sort and weigh the entire pile of garbage.
5. When each group is finished, combine the totals from each of the Recorder’s forms. Also combine the piles of garbage resulting in one large pile for each category.
6. Discuss the findings with the whole group of students. Suggestions of questions to ask:
 - ▣ What is your reaction to the project?
 - ▣ Why do you think so much garbage was thrown away today?
 - ▣ What are some ways in which you can reduce the amount of garbage that gets thrown away?
 - ▣ What is something that someone is willing to try tomorrow?
 - ▣ How will they do it?
7. The members of the group will count the items in each pile after garbage has been sorted. This number is reported to the recorder (such as 3 apples, 4 sandwiches, 8 paper bags, etc.). The person assigned to be the “weigher” will weigh each category and report to the recorder.

Data from all of the groups is then added for a grand total. Post results on a common-area bulletin board and in the school newsletter.

8. Now, promote waste-free lunches and increase recycling to reduce your lunchroom waste, which can be as much as a 40% reduction with extra efforts. Conduct a second waste audit to compare results!

Waste Audit – Recorder’s Form

CATEGORY	COUNT	WEIGHT
Whole Food		
Trees (paper)		
Oil (plastics)		
Minerals (steel/aluminum/glass)		
Organic Matter		
Miscellaneous		

Alternate Waste Audit: As students are throwing their items in the garbage can, establish bins in the above categories. Then proceed with counting, weighting, calculating, etc.