

Conduct a Waste Audit

A waste audit is a systematic assessment of the types and amounts of waste being generated by your school or classroom. The goal of an audit is to reduce the amount of waste that you send to the landfill and to increase the percentage of your waste that goes to recycling and compost instead (if available). It helps to expose trends, provides insight on specific types of waste to target for reduction, and sets a baseline against which you can measure future improvements.

GRADE: All

INTENDED OUTCOMES: Head, Hands

SUGGESTED SUPPLIES:

- Gloves, tarp or large trash bags, bucket, scale

Suggested steps and/or focus for each grade level*:

ECE-2nd Grade:

- It is likely that there are things in the landfill/trash bin that should be going to compost or recycling. To see if this is true, collect all of the trash (landfill) bins in the classroom room and dump them out on a tarp or large trash bag that has been spread on the floor.
- Have students (with gloves on) help you sort the contents into the correct categories (landfill, compost, paper, plastic, mixed recycling – depending on your waste hauler.) It can help to have visual signs or sample items for each category.
- Quantify and record the amount of waste in each category in some way. You can count the number of items in each or estimate a visual percentage of the total for each category.
- Discuss the results and how you might reduce both the amount of trash overall, as well as how you might improve your sorting. (See question in discussion below.)

3rd Grade – High School:

- Decide if you are doing an audit for just your classroom, or for the entire school.
- If you are doing this for the classroom, collect all of the trash bins in your room. For a school, select a representative sample of bins and do each one separately (i.e. one from the bathroom, one from teachers' lounge, one from a classroom, and one from the cafeteria or lunch area.)
- Dump the trash onto a tarp or big trash bag that has been split open to form a ground cover. You will probably want to do this outside!
- With gloves on, have students help sort the pile into categories - landfill, compost/food scraps, recyclable paper, recyclable plastic, metal, glass, etc. (Check the specific requirements of the school's waste hauler before hand.)
- As you go, make note of trends that you notice in the types of waste in each category. Are you seeing a lot of one particular type of item (i.e. chip bags, uneaten apples, etc.)?

- Take your empty bucket and weight it (record this number). Then, one by one, weigh each type of waste, subtracting the weight of the empty bucket. (You will have to dump each type out before weighing the next. We recommend doing compost last.)
- Calculate the total amount of waste you audited by adding up all of the category totals. You can then calculate a percentage for each type of waste, out of the total weight of all of the waste audited.
- Discuss what you saw and recorded. Which category had the most? Were there things in the landfill bin that should have been put in compost or recycling? What trends did you see in the types of materials in the trash? Where do you think these come from (the cafeteria? A gas station down the road?) What can you do to reduce the number of specific items (e.g. single-use plastic sandwich bags or plastic utensils) in the trash, to reduce the amount of waste overall, or to improve sorting into recycling and compost bins?
- If you implement any

*For more detail on the grade-level focus for natural and social concepts and sense of place, please refer to the Guidelines



TIPS AND TRICKS

- Find out who picks up the school’s waste and check with them about specifics of what can or cannot be recycled. This depends on what machines they have at their facility or where they outsource to and may not be the same as what you or your students are used to at home.
- Because the different waste categories (especially compost) have different weights, it is helpful to record a “visual percentage” for each type of waste out of the total pile, in addition to the weight of each category.
- Though we want to avoid “doom and gloom” environmentalism with young students, you can talk to them about why they think it’s not good to generate so much landfill material. With older students, you can explain how organic matter breaking down in anaerobic environments produces methane, one of the leading greenhouse gases, and other related, more complex problems.



Relevant Standards

SC09-GR.1-S.3-GLE.1