

Waste Wisdom Game

Rules:

- **Read**...each statement below
- **Move**...to the sides of the room based on whether you agree or disagree with the statement.
- **Discuss**...these questions after each move.
 - Why are you on the side you're on?
 - Did you guess, or did you have prior knowledge?
 - Give your reaction to the waste wisdom statement.

Statements:

1. **Each U.S. citizen produces 4.5 pounds of trash daily.** (True)
2. **Recycling is the most important 'R' out of Reduce, Reuse, Recycle.** (False) - They are all important, reuse and reduce are often used less. Rethink is almost never included, and maybe should be.
3. **The energy it saves to recycle plastic is greater than the energy saved by recycling paper.** (True) Energy savings from plastic recycling = 75%
Energy savings from paper recycling = 40%
4. **Reducing waste from our homes, businesses, and factories does not impact global climate conditions.** (False) Methane (a greenhouse gas) produced from landfills and incinerators that process waste are the largest producers of methane in the U.S.

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Step 2: Conduct the Audit (1-2 meetings)

The morning of the audit (or the day before):

1. Remind teachers and engineers that this is the day of the waste audit.
2. Set up the Audit Stations.
 - Put up the signs and put out the labeled receptacles.
3. If you are auditing the lunchroom, make sure students are stationed there at lunch hour to help direct sorting.

After school:

4. Bring all of the receptacles from around the school to the site of the audit *immediately* after school so the trash is not thrown away accidentally.
5. Split into groups to conduct the audit.
 - If you have a large group, separate groups can be responsible for sorting, weighing, recording, etc.
 - Remember not to touch the wet waste and to wear your spare clothes and gloves during the audit.
6. Spread out the plastic tarp in the parking lot.
 - Designate a place near the plastic tarp for: 1. recycling bins, 2. wet waste bins, and 3. dry waste bins.
7. Tie the bags of **wet waste** closed.
 - Weigh each bag and record on **Worksheet 1** how much wet waste each Audit Station generated.
 - When you are done, throw the bags of wet waste in the dumpster.
8. Leave the bags from the **dry waste bins** open.
 - Weigh each bag and record on **Worksheet 1** how much dry waste each Audit Station generated.
 - Sort the dry waste by category (defined on **Worksheet 2**), then weigh the *total* amount of each type (from all of the stations added together). For example, what is the total weight of all paper that was put into the *dry waste* bins?
 - Record the results on **Worksheet 2**.
9. Leave the bags from the **recycling bins** open.
 - Weigh each bag and record on **Worksheet 1** how much material each Audit Station recycled.
 - Sort the materials that were recycled by type, then weigh the *total* amount of each type (from all of the stations added together). For example, what is the total weight of all paper that was put into the *recycling* bins?
 - Record the results on **Worksheet 2**.
10. When you are done, recycle everything you can and put the rest of the dry waste in the dumpster.



Option 2: Walk-through Audit

Overview

If you or your school's administration would prefer that your Club not separate the wet and dry waste to be weighed and sorted, you can still conduct a walk-through waste audit. Students will visually estimate how much trash each designated area generates.

Step 1: Prepare for the Audit (1-2 meetings)

1. Discuss the Walk-through Audit with the Club.
 - Go through every step in this guide with the Club. Work together to ensure that the Club is prepared for the audit. What steps does the Club need to complete before the audit?
 - Emphasize that students will not be touching trash, only estimating how much is there. Discuss how they can estimate trash volume, and practice measuring one trash receptacle as a group (see **Worksheet 3** and **4**).
 - Discuss why the waste audit is important (see the facts and game suggestions on this page and on page 4).
2. Prepare to explain your audit to the school.
 - Make signs letting people know that the audit will be going on (see sample signs).
 - Make signs reminding the custodial staff to leave the garbage and recycling bins until after you have finished your audit (see sample signs).
3. Collect the supplies that you will need.
 - Yardsticks are needed to estimate the amount of garbage in cubic feet.
 - Gloves are needed for sanitary purposes.

Step 2: Conduct the Audit (1-2 meetings)

The morning of the audit (or the day before):

1. Put up signs at the Audit Stations.
2. Work with building manager and/or custodians to ensure that, on the day of the audit, trash and recycling will not be picked up in designated areas for 30 minutes to an hour after school. This will allow students enough time to conduct the audit.
3. Assign pairs or small groups to cover each area designated as an Audit Station.

After school:

4. Hand out gloves, yardsticks, and worksheets to each student.
5. Visit every Audit Station to estimate the waste generated there (in cubic feet).
 - Record data on the Walk-through Audit, **Worksheet 3**.
 - Calculate volume with walk-through audit, **Worksheet 4**.

Waste Wisdom Game

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5. **Composting organic waste makes a small difference on greenhouse gas emissions from landfills.**
(False) Organic waste decomposition in landfills contributes to methane production. It traps heat 23x more effectively than carbon dioxide. Composting does not produce methane.
6. **About 30% of household waste can be recycled or composted.**
(False) About 60% of household waste can be recycled or composted.
7. **It takes less energy to make a recycled aluminum can than it does to make a brand new one.**
(True) Making a new aluminum can from a used can takes 95% less energy than making a new can from mined aluminum ore. Recycling one aluminum can saves enough energy to power your TV for 3 hours!
8. **Increasing recycling rates by 2.5% would have the same effect on greenhouse gas emissions as taking 1 million cars off the road.**
(True)
9. **All paper can be recycled.**
(False) Some paper cups, wrappers, and containers (such as milk cartons) are coated in wax so that they can hold liquids without the liquids soaking through. These paper items cannot be recycled.
10. **Illinois' Livingston County Landfill is large enough to cover 100 Chicago city blocks.**
(True) The population producing this waste is around 40,000.

