

# GARBAGE WEIGH-IN

## ELEMENTARY LEVEL

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**MILLENNIUM DEVELOPMENT GOAL #7:** Ensure environmental sustainability

### Activity Snapshot:

In this activity, students will understand their own contribution to environmental problems through an experiential exercise. They will measure their classroom garbage for one day and consider the impacts of this waste over a longer period of time. As a conclusion to the activity, students will produce posters to raise awareness of garbage produced in the school, in hopes of encouraging their peers to waste fewer resources.

### Rationale:

Complex environmental issues can seem like problems without easy solutions. Ultimately, the resolutions to these issues lie in the decisions of regular people. Each North American produces about 4.5 pounds of garbage each day (which includes commercial waste produced on their behalf). This number could easily be cut in half if we each make more environmentally friendly choices, which would reduce the overall yearly landfill to half its current rate.

### Objective:

- Students will draw a connection between their decisions and the amount of waste they produce
- As a class, students will produce guidelines for reducing garbage output in the future

**Time:** Three 60-minute periods

**Materials:** a bathroom scale, one day's worth of classroom garbage, garbage bags, latex or rubber gloves, black board, chart paper

### Steps:

1. For the day prior to the lesson, have students deposit all their garbage (including lunch-time garbage) into one bin, container or bag. (Note: If students do not eat in their classrooms, designate a separate garbage can in the lunch room or cafeteria.)
2. Begin the lesson by showing students the container filled by the previous day's garbage. Ask them to guess the weight of the garbage. Students can take turns picking up the container to estimate its weight.
3. Briefly discuss the idea of landfill with the class. Ensure that students understand where their garbage goes after it is collected. Share the 4.5 lbs. per day statistic with the class and explain the meaning of "commercial waste produced on their behalf" (materials that go into producing everything they consume).
4. In front of the class, weigh the garbage on a bathroom scale. Record the number on the black board. To make the weight easier to understand, compare it to other objects whose weight children might be familiar with. (Note: Remember to weigh the garbage can separately so the weight is not included in the number.)
5. Multiply this number by seven to show students how much garbage their classroom would produce in one week (if they went to school on the weekends). Multiply the number by 365 to find out how much garbage they would produce in one year (if they went to school through the summer).

6. While wearing the latex or rubber gloves, sort the garbage into three or four categories by spreading it out on garbage bags in front of the class (e.g. wasted food, packaging, paper, etc.). If you have extra gloves, choose some student volunteers to help you, and have the rest of the class assist with choosing the categories and assigning each item to a category.
7. Once the garbage is sorted, write the categories on the board (or chart paper) and ask students to identify the most common items in each category. (e.g., organic waste, paper/plastic products, etc.).

**Transition:**

8. Ask students to select items from the list that they could do without. Cross the items off on the board as they are listed. (Note: If students require guidance, suggest that plastic wraps could be replaced by reusable containers.)
9. Continue by asking students to identify garbage items that are necessary, but could be reduced in quantity (e.g., students could reduce their paper consumption by reusing scrap paper when possible).
10. Explain to students that the next day will be a chance to reduce the amount of garbage they produce as a class. At the end of the next day, the class' garbage will be weighed again. Students can discuss the activity at home for help from parents in packing their litter-less lunches. (Option: Students can write a brief newsletter to take home to their parents and to explain to their families what they are doing.)
11. Near the end of the next day, weigh the garbage again and compare the amounts.
12. As part of a classroom discussion, talk about the change. Ask individual students to share what they did to reduce their garbage.

**Written reflection:**

Ask students to consider the personal changes they intend to make and the impact they believe these changes will make in the world.

**Closure:**

As a classroom group, come up with a list of five to 10 guidelines for the class to follow in order to reduce the amount of garbage produced. Post this list where it is visible in the classroom.

**Assessment Suggestions:**

- Participation during activity and discussion
- Depth of understanding as indicated in the written reflection

**Extension Activity:**

- Follow up throughout the year with more garbage weigh-ins, using the results from this activity as a benchmark. Create a graph on the classroom wall to track the progress of this activity.
- Students can make a presentation during a school assembly to challenge other classes or to recommend a school-wide policy.
- Students can write and design a class newsletter that can describe their activities and make suggestions for reducing litter at home.