

How much waste today?

Discovering how much waste we produce each day

Years

Middle Years (4 – 7)

Time

25 minutes

Overview

Students gain an understanding of the amount of waste each person produces each day and relate that amount to the need to reduce, reuse and recycle.

Teacher prep

For this activity, you'll need to find an area in the room where you can sort through the materials with the students and still have easy access to your chart paper so that you can record student responses.

Materials

Latex gloves (for teacher to handle materials)
Clean trash (such as old batteries, fruit peels, yoghurt containers, old light bulb, etc..)
Clean recyclables (such as phone book, mixed paper, junk mail, empty cans and plastic bottles)
scale capable of measuring 2 kilograms
1 box (large enough to hold everything)
chart paper

Procedure

Warm-up: Explain to the class that together you are going to study how much waste weighs and how much of it each of them produces every day. Tell them, "WASTE is the word we use when we are talking about our rubbish and recyclables mixed together. Today we are going to look at how much 'a lot' of waste really is."

Have students sit in a circle. Hold up the items you collected enough for one at a time and ask the students, "How much do you think this weighs?" Record the students' estimates on your Board and continue until you have held up and received responses for each item. Then actually weigh each item and list them on the board.

After recording the responses, divide the students into pairs and give each pair some chart paper. Tell them that the actual weight of waste that each Australian produces every day is more than 2 kgs. Then, with their partner, have each pair draw and/or write 2 kgs worth of items on their chart paper. To do that, they can refer to the charts that you created with the weights of the items you collected.

When they are done, ask, "Does anyone know how much waste people produce per day?" When you get the answer of 2 kgs, explain to the class, "We're going to see what 2 kgs of waste looks like." Place the empty box on the scale and ask students, one pair at a time, to place a collected item in the box. Stop when the scale reaches 2 kgs.

Looking at all of the items in the box, ask the class, "Does this seem like a large or small amount of waste?"

Once you have their responses, ask them, "How can we figure out how much waste our class makes each day?" Have them talk about ways to figure out the amount of waste the class produces each day. Listen to their responses and paraphrase them so that all students understand each idea.

To find out exactly how much waste the class produces each day, use eight tally marks to represent the 4 kilograms of waste for each set of partners. Then, have the class count all the tally marks to determine how many pounds of waste the group produces each day.

Record the amount of waste the class produces each day on large chart paper to hang on the Bulletin Board.

Wrap-up: Ask the class, "For homework tonight, please think about five different ways we can reduce the amount of waste we throwaway each day. We will discuss your ideas and solutions tomorrow at a class meeting."

END NOTES:

1 Activity adapted from Waste Away, Vermont institute of Natural Sciences, Woodstock, VT, 1989, pp. 5-6.

2 Buried in Garbage?, Colliers 1994 Yearbook, Microsoft Corporation, 1993.

