Today's Waste: What's in My Trash?

CONTENT AREAS

- **Social studies**
  population, family structure, geography
- **Science**
  solid waste, data analysis, drawing inferences, supporting conclusions
- **Writing**

OBJECTIVES

Students will...

- become aware of the amount and kinds of trash they personally generate in a day
- infer how both the types and amounts of household trash could differ because of family makeup, lifestyle, geography and season

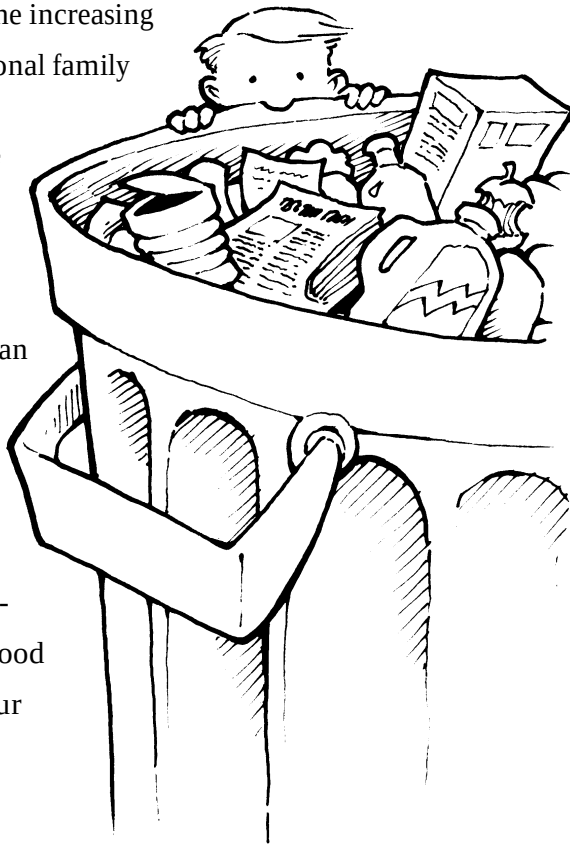
TIME

Two periods

45 minutes each

More waste is being produced per person than ever, although it is leveling off. According to the U.S. Environmental Protection Agency, in 1960 about 2.7 pounds of trash were discarded per person per day. That figure has now grown to 4.3 pounds. Much of the increase is a result of socioeconomic factors. The amount of waste discarded per person can be influenced by size of household, income, degree of urbanization, geographic location, season, number of working adults and other lifestyle factors.

Of note is the change in the American household or family structure over the last 30 years, and the impact it has had on our trash problem. The increasing breakup of the nuclear or traditional family has lead not only to more households but also to a duplication of services, goods and appliances to sustain them.



During this same period, American families increasingly have shifted from one-income to two-income households. This trend has helped to create an increasing reliance on single use and disposable convenience items. For good or bad, convenience is a fact of our current lifestyle.

PROCEDURE

1. As a class, brainstorm a list of possible items that a student could throw into the trash on a typical day, not only at home, but also at school. In generating this list, students should be reminded to think of the different categories of trash: paper, plastics, yard trimmings, metals, rubber/leather, textiles, wood, food, aluminum, glass and "other." A class recorder should compile the list on a word processor or on paper.

2. Duplicate the class list. This will be the Trash Inventory Checklist. Require each student to *monitor his or her discards for one day.* Students should use the list to check off the items they throw away, noting the number of each. Students should also note any discarded items that are not on the list.

3. The day after students complete their inventories, ask them to analyze the results and think about how the data reflects their personal habits and lifestyles. Have each student write an essay that answers this question: "It is 100 years from now and your home is the site of an archeological dig. What would an archaeologist conclude if all of your daily discards were found in a pile?" A possible prompt for students is, "If archaeologists found my trash, they would conclude . . . about me . . . because . . ."

QUESTIONS

Analyze factors that could cause variations between student inventories. Use these questions as prompts for discussion or writing.

a. Would your trash inventory be the same every day of the year? Explain.

b. How would holidays or birthdays affect your trash?

c. Would an archaeologist know what season of the year your trash was from? How?

d. Would most of your neighbors' garbage be similar?

e. Explain how each of the following factors could affect the amount and kinds of household trash:

- a baby or very young children
- a house with a small yard on a city lot
- a house with large lawn in the suburbs
- a rural farm with animals and fields
- a house/apartment with very little storage space
- a family of one parent and one child
- a family of two parents and four children
- a garden to supply vegetables and fruits
- a region that is warm all year
- not having a microwave oven
- having a very large income
- a family with two working parents

e. How does reliance on convenience products seem to affect waste?

EXTENSIONS

1. Ask students to write and share responses to the question: If you were asked to reduce the amount of waste you produce, what would you do and how would it make a difference?

2. Have students look at their inventory sheets and answer these questions: How many bags of trash do you think you produce in a day? In a week? In a year? How big an area would those bags fill? How many bags would everyone in your class produce in a year?