



science



social studies

# Waste Race



## Objective

To classify trash items as reusable, recyclable, compostable, disposable, or household hazardous waste.



## Activity Description

Students will participate in a relay race to place trash items in appropriate bins.



## Materials Needed

- A variety of trash items in each of the categories listed in Step 1, supplied by the teacher (see below for suggestions)
- Two trash bags or wastebaskets
- Two sets of colored stickers (e.g., red and blue)
- Five large plastic or metal bins

### Waste Race Suggested Items (no food items please)

Napkin	Steel can	Paper lunch bag
Plastic packaging	Plastic fork	Cardboard
Piece of cloth	Aerosol can	Paint can
Glass bottle	Piece of wood	Teabag
Aluminum can	Copy paper	Coffee can
Leaves or grass	Text book	Flowers



## Key Vocabulary Words

Reusable  
Recyclable  
Disposable  
Compostable  
Household hazardous  
Waste



## Duration

50 minutes



## Skills Used

Communication  
Observation/classification  
Motor skills



## Activity

**Step 1:** Review the Teacher Fact Sheets titled *Solid Waste* on page 47, *Hazardous Waste* on page 51, *Recycling* on page 101, and *Composting* on page 141 for background information. Review the different waste management options with students to put the activity in context. Discuss the different collected trash items and where they should go when they are

done being used (e.g., trash, recycling bin, compost pile).

**Step 2:** Label five plastic bins/trash cans as “Reusable,” “Recyclable,” “Compostable,” “Household Hazardous Waste (HHW),” or “Disposable Waste,” respectively, and place them throughout the room. (This activity will work best in a large area like a gymnasium or a playground so the students have enough room to run around.) Review vocabulary with students.

**Step 3:** Collect trash items over a few days (see above for suggestions). Collect enough for each student to have at least one turn participating in the race. Make sure the items are not dangerous for the students to handle (e.g., no sharp edges on open cans) and they should be cleaned, if necessary. Divide the items into two piles (one for each team), labeling the Red team's items with the red stickers and the Blue team's items with the blue stickers.

**Step 4:** Have students form two lines/teams in the center of the room.

**Step 5:** Explain to the students how a relay race works. The teacher should pre-determine and announce a time limit for the race, based on the number of students and their level of familiarity with the subject. When the teacher signals for the race to start, the first student in each line will reach into his or her team's trash bag and pull out an item. The two students will decide in which bin it belongs and run to the labeled plastic bin. After placing the trash item in the bin, the student will run back to the end of the line and the next two students will repeat the same process. When the time limit has been exceeded, the teacher will end the race. The object is to be the fastest team to sort the items correctly.

**Step 6:** At the end of the race, empty each bin one at a time so all the students can see if the items were placed correctly. Encourage the students to discuss why each trash item was placed in its bin. Discuss whether some trash items can be placed in more than one bin. The team that was able to place the most items in the correct bin wins.



### Assessment

1. See Step 6.
2. Have students name an item not included in the game that is reusable, recyclable, compostable, disposable, and/or household hazardous waste.



### Enrichment

1. Expand the Waste Race to include other classrooms and possibly a tournament for a great Earth Day activity.
2. Explore the activities found in the Planet Protector's Club kit. This kit was created by EPA as a way to get students involved in learning about their environment. It includes two pocket guides (one for adults and one for children), an official membership certificate, an official Planet Protectors Club badge, activity guides for grades K-3 and 4-6, and a Planet Protectors Club poster. To order this kit, call EPA at (800) 490-9198 and ask for document number EPA530-E-98-002.