

# Reduce, Reuse, Recycle!

**Grade Level:** 3-12

**Time Needed:** 60 minutes

**Supplies:** Bags full of "trash", bags for setting up a mock recycling center, suitcase full of reused and recycled content products

**Location:** Request the school gym for the Recycling Relay

**Objective:** Students will learn about the hierarchy of reduce, reuse, recycle, find out types of solid waste is currently being buried at Iowa landfills, run a relay race at a mock recycling center and learn about innovative products made from recycled items.

**Introduction:** Write the words reduce, reuse, & recycle on the board

- Ask students to explain & give examples of all 3
- Where does your garbage go? Briefly explain the construction of a landfill, liners, life expectancy.

**Activity I:** PU Dump (from Iowa's Clean SWEEP- Solid Waste Environmental Education Project). Students put out two bags of garbage (shoes) by their desk, which is then taken to the county landfill. We discuss what items could have been diverted from the landfill. Review the 3 R's and see if the students come up with composting & wise shopping.

**Activity II:** Ask students to fill out the rest of the Iowa Characterization Study:

For the whole report, go to [www.iowadnr.com/waste/sw/files/wastechar05.pdf](http://www.iowadnr.com/waste/sw/files/wastechar05.pdf).

What made up 33% of all waste buried at Iowa Landfills? Paper!

Categories were as follows:

33% (Paper; includes cardboard, office paper, etc)

14.9% (Plastic)

10.6% (Food Waste)

8.0% (Wood Waste)

5.5% (Construction & Demolition Waste)

These top five categories make up 72% of what is currently headed to Iowa landfills.

Ask the students- How many of your families recycle?

How many families compost?

What items are taken in your town for reuse or recycling?

To measure your knowledge of local recycling we're going to play a little game...

Activity III: Play the ***Recycling Relay Race***

- Set up four teams
- Students need to "recycle" items from the team bag by taking them to the mock recycling center at the other end of the gym/large classroom. For older students we can add a category for Household Hazardous Materials that are taken at the RCC (Regional Collection Center at the Bremer County Landfill).
- After all bags are empty the students get 2-3 clues and then 1 minute to fix any mistakes
- The goal is to have fewer than 5 mistakes. Go through the recycled materials and discuss how to prepare recyclables (clean them, smash them, take labels off cans, etc)

Activity IV: So after we recycle- what happens to the items?

- Pull out the ***Reusing Suitcase***-Show ways that items such as steel cans, containers, paint sticks, jigsaw puzzles, etc can be turned into new things or crafts.
- Show the students the ***Recycled-Content Suitcase***- Show them items such as mittens made from #1 clear plastic, stationary made from banana peels and recycled paper, rulers made from Mt. Dew bottles, and pencils made from T-shirts, money and recycled denim-to name just a few.