Real Health: Using the 4 R's for Environmental Health
Janice Clark, Ed.D., MCHES
Health and Exercise Sciences Department, Truman State University, Kirksville, MO.

Introduction

Americans generate 4.4 pounds of garbage per person per day (EPA, 2015). In the US, nearly 50% of all produce (almost 60 million tons, or $160 billion worth of food) is thrown away annually (Chandler, 2015), yet the national rate of recycling and composting is 1.51 pounds per person (EPA, 2015). Clothing is now a “fast” fashion industry producing almost 13 million tons of textile waste (EPA, 2015). Because America has become such a disposable culture, students from K-12 through college must learn and practice ways to be more environmentally conscious and become advocates for their planet’s future.

Reduce, Reuse, and Recycle are the basics of the three R’s in environmental education. If Respond is added to make a fourth “R”, then students can take personal responsibility for their actions (Clark, 2004) and decrease the unnecessary waste in the community and the environment.

Without the deliberate practice of the 4 R’s, America’s wasteful habits will continue to increase. Landfills and overzealous consumerism will continue to strain limited natural resources (Clark, 2004).

For future generations to have a healthier environment, all ages need to change their throwaway mentality and embrace the 4 R’s (Clark and Young, 2004). Environmental health lessons/courses should incorporate the National Health Education Standards (2007) for decision making, skill building, information access, and advocacy. Education is crucial to reducing current environmental problems. Students need to apply what they are learning to real-world situations—at school, at home, and in the community. Using service learning, students can link their knowledge and skills to resolve local environmental problems and issues, as well as foster personal ownership and stewardship. They can mentor younger peers, encourage others to make changes toward more sustainable living practices, and advocate for changes. With the 4 R’s as a foundational way of thinking and behaving, students can take personal responsibility to reduce their personal footprint and conduct an activity each month

RESPOND  Ideas

**Environmental Buddies**
University students teach elementary students 4 R’s lessons and conduct an activity each month.

- Green Thumb Garden Project
A university/school district partnership for a local elementary after-school program maintains three garden areas at two schools—raising vegetables, fruits, and herbs. Nutrition and ecology lessons or gardening sessions occur twice a week. Produce is shared and also sold at the local farmer’s market.

- Street & Stream Clean-Ups
Grade 5-6 college students maintain sections of city streets and local streams, and become local eco-advocates for these areas. They clean the streets monthly and the streams each semester.

**RESPOND Ideas**

**Evaluation of Habits**

Water Use Table (EPA, 2008)
For grades 3-5 and up:
Families examine their water use and consumption. Then, they discuss ways to use less water without sacrificing their quality of life—and save money!

**Personal Energy Audit** (Clark, 2017)
Students, grades 6-college can examine their personal behaviors related to resource and energy use. They can evaluate their willingness to reduce their environmental footprint during the semester—and their lives.

**Think Green Activity—Grades 5-College** (Clark, 2017)
Before shopping, think carefully about what to buy, and how much of it. Answer these questions before shopping.

- **QUESTIONS TO CONSIDER:**
  1. Do I already own it?
  2. Do I really need it?
  3. Can I reuse it?
  4. Can I buy it used?
  5. Is it made of recycled materials and easily recyclable?
  6. Does the manufacturer have green values and practice sustainability?
  7. Is it built to last?
  8. Is this an impulse purchase?

**4 R's Partnerships**

Promote School-Community Partnerships to:
- Connect with local college/university to link environmental projects and encourage older students to mentor younger ones
- Contact local businesses to donate free reusable shopping bags to encourage elementary students & families to reuse
- Partner with local recycling companies to:
  - Place recycling bins in the school classrooms and common areas
  - Regularly remove full bins from school grounds
  - Purchase recyclable materials to support student projects and/or unused school needs
- Achieve local environmental goals for reducing, reusing, and recycling

**RECYCLING Activities**

**Aluminum Can Recycling Fundraiser**
Elementary students collect aluminum cans for the school’s butterfly garden and outdoor science center. Families, friends, and neighbors save their cans for the children. Grade levels compete for the most pounds of recycled cans. The cans are sold to a local recycler.

**Environmental Awareness Activities**

National Recycling Day and Earth Week events are held each year on campus. These events partner with student organizations to host:
- Tables on campus sustainability
  - Campus recycling info
  - An eco trivia contest
  - A zero-waste contest
  - A walking challenge
  - “Anything but Clothes” fashion show
  - Environmental speakers
  - Social media campaigns
  - Recycling repair
  - Local foods dinner

**References**