



WASTE-FREE ACTIVITY IDEAS FOR SCHOOLS

These waste-free activities will not only reduce the amount of trash generated by your school and reduce waste-collection costs, they will also teach students real-life concepts of environmental stewardship by finding ways to reduce and reuse. Environmental project-based learning will help children connect to the natural world, will help them feel like they are making real contributions to their community, and will help them integrate in-class learning with hands-on experiences.

1. **Start a student green team** to empower interested students to come up with their own ideas to reduce waste, and implement actions to help the planet. Get the support of a teacher liaison to share ideas and progress at staff meetings. Announce the forming of the group at an assembly and in your newsletter, meet once a week at lunch, and get the kids involved in hands-on, meaningful waste-reduction efforts at school. The green team can help initiate and manage new waste-free efforts, as well as support ongoing ways to help the school reduce waste. For example, the students can come up with a schedule for taking the compost from the lunch yard to the garden, or placing baskets in the snack and lunch areas so that other students have a place to store their reusable lunch items while they are playing. You could have older students mentor the younger junior green team students. They will become leaders and motivate others to take action!

Wade Thomas School in San Anselmo built on their students' language arts and presentation skills when they had their green team perform classroom skits in which each "actor" walked past three cans (**COMPOST**, **RECYCLING** and **LANDFILL**) while throwing away items from her disposable lunch bag, and as she threw out each item (plastic bag, foil, banana peel, paper bag, juice box, cloth napkin, thermos), she thought out loud about which bin it should go in and the path that item will take once it is thrown "away". When she came across an item that was **REUSABLE**, she kept it in her lunch bag and thought out loud about the positive environmental impact of that item.

2. **Encourage students, parents and staff to pack a waste-free lunch.** Promote a sale in which you invite waste-free lunch vendors to come to your school to show and sell their products. Students can have a table next to the vendors with waste-free ideas, and examples of projects they have done or information they would like to share. They can create a display that compares the economic, health, and environmental costs of a waste-free lunch vs. other types, and show an example of a waste-free lunch and a waste-full lunch. They can also create and display diagrams that track the life of items that are recycled and taken to landfill.
3. **Have students and staff tote their own trash** for the day. Have students and teachers attach a bag to their belt for the day and place all of their recycling or garbage (with the exception of bathroom waste) into their bag. Students can do a personal audit at the end of the day and formulate a plan to reduce personal garbage.

4. **Calculate and compare costs** of using disposable vs. reusable lunch products. Older students can hypothesize, research and draw conclusions to present to their class. Packing a waste-free lunch saves money. The Center for Ecoliteracy reported: "An average elementary school student eating homemade lunches is estimated to generate between 45 and 90 pounds of Ziploc™ bags, foil pouches, and other packaging waste each year, roughly equivalent to the body weight of a third- to sixth-grader." Compare the two:

DISPOSABLE lunch		REUSABLE lunch
buying packaged food in pre-packaged, single-serving sizes	vs.	making food from scratch, and buying food in bulk and in large jars or cans for reusable containers
buying plastic bags, foil and plastic wrap	vs.	reusing stainless containers or recycled plastic food cozys
buying juice boxes and water in plastic bottles	vs.	refilling and reusing a stainless steel water bottle
buying paper lunch bags	vs.	reusing a cloth, stainless steel or recycled plastic lunch box or bag
buying paper napkins	vs.	reusing cloth napkins
buying plastic utensils	vs.	reusing utensils

5. **Compare the energy costs of reusing, recycling and throwing "away"**. Often kids can make more meaningful connections when they are moving their bodies and visualizing distance as it relates to concepts that are hard to teach otherwise. Try this:

Have students stand in one line on the playground in front of three bins.

- The first bin, marked **REUSE**, should be placed a foot in front of the line of students.
- The second bin, marked **RECYCLE**, should be placed about ten feet in front of the students.
- The third bin, marked **LANDFILL/GARBAGE** should be placed about 25 feet in front of the students.

Have each student choose something from a large assortment of items and decide in which bin it belongs (cloth napkins, stainless water bottle, plastic water bottle, paper bag, plastic wrap, potato chip bag). Let them know that the farther they walk, the more energy it takes to "dispose" of the item. Discuss the implications of having to walk farther to a bin and using more "energy":

- Reusing reduces our impact on the environment the most. Reusing saves more than just materials; large quantities of energy are also part of every product, built into it from mining to manufacture to disposal with lots of transportation involved at every stage of a product's life.
- Recycling, while an important effort, results in a modest reduction of environmental impact; it saves materials but uses a great deal of energy to collect, sort, clean, melt or pulp and re-manufacture those materials into new items.
- Products that are placed in the landfill/garbage create the heaviest burden on our planet, creating huge toxic landfills and harmful greenhouse gasses.

6. **Conduct a trash audit**, an essential step in your effort to reduce waste because it helps determine where the bulk of your trash is coming from. Decide how many and when you'll do the audits, track your results, and communicate solutions to parents, students and staff. At lunch, students can stand by the compost, recycling and landfill bins and track what the students throw away, or sort through the bins after lunch with gloves. They can use the results in the classroom to teach math, graphing, estimating, charting, presenting information, and more. After a waste-free campaign to reduce trash, the audit can be done again to evaluate progress and measure the results of the campaign.

Neil Cummins School in Larkspur created a visual way to display their findings. They calculated that if each student used about one Ziploc bag every day (but they thought the actual number is closer to three per day), each student would use about two 100-bag boxes of Ziplocs per year. Then they figured that all the students in the school together use a total of 134,000 Ziploc bags (or 1,340 boxes of Ziplocs) every year. If these boxes were stacked up, they would measure 447 feet high, which means the boxes would cover the entire length of their gym 4-1/2 times!

7. **Start a compost or worm bin.** Composting is a hands-on way to learn about important life science concepts such as ecosystems, food webs and biodegradation. Students experience how worms and other decomposers recycle fruits and vegetable scraps into compost. Use the compost in your school garden! Have green team students make up a skit and present details about the new composting program to all classrooms. Have them make signs for the bins (compost, recycle, and landfill), monitor the waste collection at lunchtime, cart the food waste to the compost, and decide how and where the compost will be used. Visit www.howtocompost.org and www.compostguide.com to learn more. The Center for Ecoliteracy is also a wonderful resource (www.ecoliteracy.org).
8. **Paint posters and decorate bulletin boards** or the doors to the cafeteria with waste-free lunch messages to announce or support a waste-free event, and have students vote for their favorite poster.

Poster message ideas:

- 38 billion plastic water bottles end up in landfill each year.
- Plastic water bottles take 700 years before they start to decompose.
- Children's lunches create 3.5 billion pounds of garbage each year.
- 18,000 pounds of trash is generated each year from one average-sized elementary school.
- It takes a 15-year-old tree to produce 700 brown paper bags.
- The average child generates 67 pounds of lunchtime trash each year.
- Trash is often mistaken for food and eaten by sea life.
- The United States has 6% of the population and produces half of the world's garbage.

9. **Compare and swap reusable items.** Ask students to bring in any disposable item (like a paper napkin or disposable camera) and a similar non-disposable item that can be reused (like a cloth napkin or a non-disposable camera), and have them research the time it takes for the disposable item to decompose. Have them build on this by suggesting an exchange they can have in class with items they have at home that they are willing to share (a book exchange, for example).

10. **Create awareness at the waste bins** by making large, clearly visible bin signs, and be sure to label the garbage cans as **LANDFILL** so that that connection is made each time a student, parent or staff member throws something away. Put examples of items on the signs for younger kids and to reduce congestion. For example, tape a plastic water bottle and foil to the **RECYCLING** sign, chip bag and yogurt sleeve to the **LANDFILL** sign, and paper napkins to the **COMPOST** sign.

Turn over garbage cans to increase awareness and implement a zero-waste day each week, like "Trash-Free Tuesdays" or "Waste-Free Wednesdays". On waste-free days, put signs on the upside-down cans that say: "The landfill needs a break! Bring a waste-free lunch next time!"

11. **Have students build on their math skills by calculating the school's waste disposal costs** each week or month, and estimate how certain actions can save the school money. The Center for Ecoliteracy reported: "A recent waste audit in Berkeley (California) Unified School District determined that the district was spending on the average of \$26 per student for waste disposal, or a total yearly cost of \$225,661 for the district. A large part of this figure is waste generated from school lunch."



This picture represents one day of trash from a school with 300 students (before they initiated a waste-reduction program), and all this waste is expensive for schools to haul away!

12. **Conduct a classroom audit** to identify waste and look for ideas to reduce and reuse. Empower the student to set goals, search for solutions and review progress.

Waste reduction ideas for the classroom include:

- Encourage students and teachers to pack a waste-free lunch.
- Encourage teachers to use an overhead projector or blackboard to reduce the amount of paper distributed in class.
- Encourage teachers and staff to communicate with parents using email when possible instead of sending home paper communication.
- Encourage teachers to make double-sided copies when possible.
- Encourage students to write on both sides of paper before recycling.
- Designate a box in the classroom for scrap paper, fabric, and other objects that can be reused for projects.
- Encourage students to collect reusable supplies for art projects such as egg cartons, magazines, milk cartons, paper grocery bags, etc.
- Encourage students to use three-ring binders instead of spiral notebooks (binders can be reused and paper can be easily removed for recycling).
- Encourage classrooms to use reusable dishes, cups, utensils and napkins for parties and events.

13. **Invite a guest speaker** to address individual classes or to speak at a school assembly about waste, pollution prevention or recycling. Contact your local landfill, city or county public works department, town's sustainability organization, waste hauler, or department of environmental quality for potential guest speakers.
14. **Go on a field trip.** Visit your local landfill, recycling center, or a nearby composting facility where the students can see first-hand what is happening to waste, and learn about the lifecycle of waste and its affect on the environment.
15. **Partner with organizations** that implement school programs to encourage students and families to reduce waste by motivating them to take simple, measurable actions to collectively make a significant impact on the planet. Cool the Earth (www.cooltheearth.com) is a grassroots, school-to-home program that teaches education through action. Next Generation (www.gonextgeneration.org) works with schools in Marin County, California, to offer an array of inspirational activities (including assemblies, field trips, lessons and garden activities) to educate students about sustainability and the impact of waste.
16. **Teach others.** Kids are incredible mentors and take great pride in teaching others. After your students have completed a program to reduce waste in your school, have them present their findings, ideas and results to your staff, parents or other schools.
17. **Create opportunities for classes to compete** to see who can generate the least waste during a 'green challenge week' or other program designed to increase awareness. (For example: the class with the best waste-free idea, the class that reduces the most garbage.) Have the students decide how to measure success (for example, if you weigh classroom garbage cans, this doesn't take into account plastic bag waste). Older students can solve other problems, like how to compare waste reduction efforts if there are a different number of students in each class. Give the students opportunities to think critically in real-life situations, and give them incentives to succeed (such as lunch with the principal, their names in the newsletter, recognition during a school assembly).
18. **Recognize the Green Student of the week or month.** Have teachers, parents and students nominate students who have made a difference by doing something to help the environment and reduce waste.
19. **Have students organize hazardous waste recycling** by dedicating a day like the first Friday of the month "First Fridays" to turn in old batteries, cell phones and printer cartridges. These items are toxic to our oceans and landfills. Check with your local sanitation department or go to Earth 911 (www.Earth911.com) for details. Some organizations give money back to the school in exchange for the items.
20. **Get attention for your cause!** Having a hard time getting teachers and students to participate? Have your principal dye his/her hair green for the day once your school's goal of going waste-free has been met. It works; they did it at the Hopi School in Phoenix!
21. **Have students document their waste-free activities** or ideas and enter our Kids Konserve Essay Contest on our website. We host different essay contests and quizzes in our Kids Korner section. Get your school's classes or green team to submit and they could win a free waste-free lunch kit. Host your own essay writing or picture drawing contest on the importance of going waste-free.