



# Kentucky Green and Healthy Schools



## Teacher Guide Solid Waste

If your students have chosen to do an Improvement Project in the Solid Waste category, the resources below can help them as they complete the Project Form.

### **Remember to let your students lead!**

As much as possible, let the students decide the direction of their investigation and come up with Improvement Project ideas.

#### **Places to Investigate**

- Garbage, recycling and compost
- Cafeteria
- Offices
- Classrooms
- Supplies
- School grounds

#### **People to Interview**

- Maintenance/custodial staff
- Administrative staff
- Kitchen staff
- Teachers
- Community members

#### **Questions**

These questions can be utilized as prompts should you need them. Ideally, we would like students to engage in their own questioning to provide an authentic learning experience.

- Trash Disposal
  - How full are trash dumpsters when emptied?
  - How much trash by volume is discarded during the school year?
  - What percentage (by volume or weight) of the waste stream are the following items?
    - Paper/cardboard
    - Metal cans (aluminum, steel, tin)
    - Electronics/Hazardous Waste
    - Food
    - Grounds Waste (leaves, branches, grass clippings)
    - Plastic (and other synthetics like Styrofoam)
    - Glass
  - Where does trash go when it leaves the classroom?
  - Where does the trash go when it leaves the school?
  - Who picks up the trash?
  - What is the school's annual average monthly cost for trash pickup?
- Litter
  - Do you see any litter on school grounds?





- What types of litter do you find?
  - Paper/cardboard
  - Metal cans (aluminum, steel, tin)
  - Electronics/Hazardous Waste
  - Food
  - Plastic (and other synthetics like Styrofoam)
  - Glass
  - Other
- Do you see any litter in your community?
- Are there are fines for littering in the community?
- How often does local law enforcement issue fines for littering?
- Reduce, Reuse, Repurpose Rebuy
  - Does your school and/or school system purchase or use items made with recycled materials (e.g., paper products, engine oil, paints)?
  - Does your school purchase supplies in:
    - Quantities large enough to reduce packaging waste?
    - Reduced/recycled packaging?
  - Does your school have a policy for the reduction of paper usage? (e.g., electronic record storage, use of email, printing on both sides of the paper, online tests, reusing scrap paper)
  - How does your school promote reducing, reusing and rebuying repurposing in the community? (e.g., recycling drink containers used on school field trips, collecting clothing and food for local charities, holding locker clean out days and donating old school supplies/unclaimed lost items to students in lesser developed countries)?
  - What percentage of school waste is:
    - Recycled?
    - Reused?
    - Composted?
    - Burned?
    - Thrown in the landfill?
- Recycling
  - Does your school recycle? If so, what does it recycle?
  - What percentage of your school's classrooms/offices participates in recycling?
  - Does your school provide recycling containers as well as garbage containers in all areas of the school grounds?
  - Where is the main storage area for your school's recyclables (e.g., near the rear loading dock 25 feet from the building exterior)?
  - Who is responsible for managing recyclable materials?
  - Where do recyclables go after they leave the school?
  - How much income does your school receive from recycling? Or, how much does your school pay as a recycling fee?
- Composting
  - Does your school compost yard waste or other types of waste?
  - Does your school compost food service waste?
  - Where is (or could be) a compost site located on school grounds?
  - How is (or could) school-generated compost used?
  - How much does your school spend annually on mulch and fertilizer?
  - Does your community sponsor any programs relating to composting?





## Resources

- [Bluegrass Greensource](#) - Bluegrass Greensource offers recycling, water education, and hazardous waste programs in central KY. They also offer grants to schools and other organizations.
- [Buy, Use, Toss? Lesson Plans](#) - These lesson plans from Facing the Future are offered as free downloads. "An interdisciplinary unit that includes ten fully-planned lessons. This unit is correlated with national science and social studies standards and will lead your students through an exploration of the system of producing and consuming goods that is called the materials economy. Students will learn about the five major steps of the materials economy; Extraction, Production, Distribution, Consumption, and Disposal. They will also be asked to analyze the sustainability of these steps, determining how consumption can benefit people, economies, and environments."
- [EEinKentucky.org](#) - This website is a one-stop resource for environmental education in Kentucky. The site lists grant announcements, jobs, news, professional development opportunities, conferences, and other events from across the state.
- [KEEC Environmental Education Curricula](#) - The Kentucky Environmental Education Council has published several sets of lesson plans for all grade levels on the topics of solid waste, water, and biodiversity.
- [Kentucky Division of Waste Management, Recycling and Local Assistance Program](#) – The Recycling and Local Assistance Program can come to your school to do a solid waste audit, help you find a market for your recyclable materials, and help you set up a system for collecting materials.
- [School Recycling Guide](#) - This website includes a guide for starting a recycling program at your school.
- [Technology Conservation Group \(Louisville, KY\)](#) - The Technology Conservation Group offers presentations and field trips dealing with solid waste to schools. Contact Craig Daniels at [craig.daniels@tcgreycling.com](mailto:craig.daniels@tcgreycling.com) for more information.

## Improvement Projects

Your students should come up with their own ideas for an Improvement Project, but below are some examples of previous Improvement Projects for Solid Waste:

- Starting or expanding paper, cardboard, cell phone, drink pouch and metal recycling programs
- Starting composting programs and purchasing compost bins
- Campaigns to reduce Styrofoam and paper use
- Presentations on recycling, composting and solid waste, and awards for reduction
- Installing trash cans and signs to reduce litter





## Extensions

After coming up with an idea for an Improvement Project, consider the following optional extensions.

- A) Submit your investigation documentation to the Project Learning Tree (PLT) GreenSchools! program for their Waste and Recycling category. Once you submit investigation documentation, your school becomes eligible for thousands of dollars in grant money from the GreenSchools! program. You can also submit your completed Improvement Project to this site. Learn more at [www.plt.org/greenschools](http://www.plt.org/greenschools).

