



Steps for Organizing a

SCHOOL RECYCLING PROGRAM

A Guide to Help You Begin or Improve
Recycling at Your School



Benefits of Recycling

Recycling is an important way for individuals, households, institutions and businesses to conserve natural resources, save energy, reduce pollution and conserve landfill space. Recyclables are used as valuable raw materials, which expand U.S. manufacturing jobs and increase competitiveness in the global marketplace. Recycling creates four jobs for every one job created in the waste and disposal industries and strengthens the economy in Ohio

On average,
Americans
generate
4.5 lbs. of trash
per person
per day!

Importance of School Recycling

The Ohio Department of Natural Resources estimates that 60 percent of material in Ohio's landfills is recyclable, and 40 percent of this material is paper. Paper is one of the largest segments of a school's waste, followed by food and corrugated cardboard. Implementing a school recycling program diverts these valuable materials as well as other recyclable materials. The result is schools save money by reducing their trash hauling costs, while effectively reducing the amount of waste going to Ohio's landfills.

A school recycling program communicates the value of recycling and environmental stewardship to students, teachers, staff, administration and parents. Students gain practical, hands-on learning experience in waste reduction and gain a sense of leadership and pride for their school and environment.

Importantly, recycling helps many school districts save money by reducing the frequency of trash collection. Depending on the type of materials recycled, there may be opportunities to earn revenue from the sale of some recycled materials such as paper and aluminum cans.

Recycling Incentive Grant Funds



The Butler County Recycling & Solid Waste District provides annual grant assistance to support new recycling and waste reduction programs or to assist with expanding existing recycling programs. Grant funds can help cover expenses for recycling equipment (bins, totes, and balers), service fees (hauler fees) and promotional materials (flyers, brochures, advertisements). For more information about the Recycling Incentive Grant, please visit www.butlercountyrecycles.org or call (513) 887-3406.

Steps for Starting a School Recycling Program

1. Assemble a team

Organize individuals at your school who are passionate about recycling and willing to help with the school recycling program. Form a recycling club or “green team” to oversee implementation of the program. Select one person to be the leader and provide specific tasks for each member of the team. This team should include custodial staff, students, teachers, parents and administrators. Have an assembly and make presentations to students and staff to communicate the value of recycling.

2. Identify recyclable materials

Assess your school’s waste stream and identify recycling opportunities throughout the school (e.g. classrooms, cafeteria, teachers lounges, offices, vending areas, library, gym and athletic fields). Determine the types of recyclable material the school generates. The most commonly recycled items at schools are paper, cardboard, aluminum and plastic beverage containers, batteries and printer cartridges. Record how much trash the school collects and how much of it consists of recyclables. Use the waste calculator at the end of this brochure as a guide.



3. Determine how to fund the recycling program

Inquire with local hauling companies about the recycling services they provide and the cost for these services. Look for funding within the school budget and parent/teacher organizations. Also, consider partnerships with school vendors and local businesses. Consider Butler County Recycling & Solid Waste District’s grant funding program as a way to start your school’s waste reduction program. For more information, please visit www.butlercountyrecycles.org or call (513) 887-3406.

4. Organize collection, storage and transport of recyclables

Determine how many and what type of recycling containers you need and where you will place them throughout the school. Consider containers with restricted openings to reduce trash contamination (e.g. round holes on lids for plastic bottles or aluminum cans and slots for paper) and clearly label the containers to indicate what item(s) go inside. Colorful signage or posters (designed by students) placed above and near recycling containers can provide information about “what” and “how” to recycle. Place recycling containers in areas where people use the recyclable materials and near trash containers or copy machines to make recycling an easy choice. Educate staff about recycling and inform them of storage locations until collection/transport takes place.

Consult with your waste hauler and building management staff about the necessary space needed to place a large recycling dumpster (typically a 6 cubic yd container) on school grounds. Determine accessibility to containers for school custodians managing recyclable materials, students who may be assisting with recycling collection, and the hauler. Consider local zoning requirements that may require screening for waste and recycling dumpsters on school property.

5. Communicate and educate

Participation determines the success of a recycling program so it is critical to explain the recycling program to students and all levels of staff. Display signs, banners and posters throughout the school promoting the school recycling program. Place information on the school's website and in handbooks. Present information about the program at school orientation, assemblies and/or parent/teacher meetings. Have guest speakers and take advantage of Earth Day/America Recycles Day to reinforce the recycling message.



Here are some suggested strategies to keep students involved:

- Select student monitors and volunteers to oversee and empty recycle containers.
- Ask students to participate in a recycling poster contest.
- Give a daily recycling message through school email and intercom.
- Initiate field trips to Rumpke's recycling facility. This is a fascinating way to share the journey of how our recyclables are managed.
- Set up a system that randomly awards students who get caught recycling.
- Organize curriculum for a special weeklong recycling and conservation program to be included in social studies, economics, and/or math classes.
- Provide community service credit hours for "Green Club" members who help with recycling before/after school hours.
- Promote pizza lunch for all who participate in the "Green Team".
- Have students participate in creating large visual displays to record and communicate the results of recycling efforts on a regular basis.
- Distribute reusable water bottles to students and staff to promote drinking water as an alternative to sodas and to reduce bottle waste.
- Reinforce recycling with the use of recycle containers at sporting events and school assemblies.

6. Keep records, evaluate and expand

Track how many pounds or tons of material is recycled at the school. The recycling hauler should be able to monitor and provide recycling figures through a monthly report. These records will also help determine cost savings (from avoided trash disposal costs) as well as possible revenue from recyclables. Use this information to evaluate the program and set benchmarks for improvement. Review the recycling program and your goals at least once a year. Provide a survey to students and staff to help evaluate the success of the program and solicit ideas for improvement. Review the waste hauling and/or recycling contracts on an annual basis. A good recycling program should decrease the cost of trash removal. Once you determine the recycling program is operating effectively, investigate additional ways to reduce, reuse, and recycle. Other areas to consider are water conservation, energy conservation, and composting.

7. Recognition and rewards

Make sure students know that everyone wins with recycling. Give recognition awards to individuals, a class and/or grade level recyclers. Also, give recognition and appreciation to recycling team members. Celebrate with events like field trips and pizza parties or provide incentives, such as, T-shirts, stickers, pencils and posters. Involve local stakeholders in the recognition to promote the success of the recycling program and the excitement from the involvement of the recycling team.



Some Recycling Facts

Paper

- Paper can account for as much as 60 percent of school waste.
- Manufacturing one ton of office paper with recycled paper stock can save between 3,000 and 4,000 kilowatt hours over the same ton made with virgin wood products.
- Preventing one ton of paper waste saves between 15 and 17 mature trees.
- Recycling one ton of paper saves enough energy to heat an average home for six months.
- The greenhouse gas emission reductions from recycling 10 tons of mixed paper are comparable to preventing the use of 94 barrels of crude oil.
- Recycled paper supplies 37% of the raw materials used to make new paper products in the U.S. Without recycling, this material would come from trees.
- Americans use more than 67 million tons of paper per year, or about 580 pounds per person.

Cardboard

- It only takes about 75 percent of the energy to recycle cardboard as it does to manufacture new cardboard. In addition, recycling cardboard creates less sulfur dioxide emissions into the atmosphere than the processing of pulp from trees.
- Every year, more than 900 million trees are cut down to provide raw materials for American paper and pulp mills.
- Recycling 1 ton of cardboard saves 9 cubic yards of landfill space and 46 gallons of oil.

Aluminum - Plastic

- It takes 95% less energy to recycle aluminum than it does to make it from raw materials.
- Recycling one aluminum beverage can saves enough energy to run a 100-watt bulb for 20 hours, a computer for three hours, or a TV for two hours.
- Recycling 10 tons of aluminum prevents the same amount of greenhouse gas emissions as preserving more than 1.1 acres of forest from deforestation.
- Producing new plastic from recycled material uses only two-thirds as much energy as manufacturing it from new raw materials.
- Five 2-liter recycled PET bottles produce enough fiberfill to make a ski jacket.
- Recycling 10 tons of PET plastic prevents the same amount of greenhouse gas emissions as removing more than three cars from the road for one year.

Steel

- Recycling steel and tin cans saves 60 - 74 percent of the energy used to produce them from raw materials.
- According to the Steel Recycling Institute, steel recycling in the United States saves the amount of energy required to power about one-fifth of American households for one year.
- One ton of recycled steel saves the energy equivalent of 3.6 barrels of oil and 1.5 tons of iron ore over the production of new steel.
- Recycling 10 tons of steel prevents the same amount of greenhouse gas emissions as growing 470 tree seedlings for 10 years.

Butler County School Recycling Program Summary

School	Recycling Program Projects	Participation Activities	Estimated Annual Tons Recycled
Lakota Adena Elementary	Used grant funds to purchase 22 recycling bins for each teacher to recycle paper through Abitibi.	Student team responsible for emptying bins every Friday into the Abitibi recycling container. Students made posters encouraging recycling.	29.82
Badin High School	Badin used grant funds in 2008 to purchase totes for the easy transport of paper and cans to recycling containers. In 2009, they received additional grant funds to purchase a commingled container for recycling. In 2010, they included recycling material from the cafeteria.	A group of sophomores are promoting recycling and raising awareness among students, teachers and parents. They create posters and competitions to encourage students and staff to be involved.	200
Fairfield City Schools	Fairfield City Schools used grant funds to purchase recycling bins for the intermediate school classrooms. In 2009, recycling services expanded to North Elementary, Fairfield Senior High School, Freshmen School, Intermediate School, Middle School, and West Elementary. In 2010, Butler County helped the school district expand recycling to Fairfield Central and East elementary schools.	Fairfield schools formed a recycling committee that consisted of administrative personnel, teachers and students. This committee promoted recycling awareness at the schools through posters, active participation and communication. They continue to increase the amount and types of materials recycled for their school district with support from the county's recycling grant program.	660
Hamilton City Schools Fillmore Elementary	Butler County grant funds were used to purchase bins for paper recycling in classrooms.	Teachers and students promoted recycling through a poster contest to identify what materials are recyclable. Students estimated quantities of materials recycled.	26.25
Lakota Hopewell Elementary	Grant funds provided to purchase bins for paper recycling in classrooms.	The sixth grade class promotes recycling by providing mini training lessons to classrooms about recycling.	22.10
Talawanda School	In 2008, Talawanda Schools used grant funds to support a composting and recycling project; including commingled recycling containers and recycling bins for classrooms.	The seventh grade class took the lead in "modeling" recycling to other students. They also helped custodial staff with emptying bins. High school students hosted a recycling contest between three lunch shifts to see which group produced the most recycling.	27

Waste Generation/Assessment Calculator

<p>Waste container location; size (gallon or cubic yard); and number of waste dumpsters (outside bins)</p> <p>Location #1: Size: 90 gallon cart ____ 2 cubic yard dumpster ____ 3 cubic yard dumpster ____ 4 cubic yard dumpster ____ Other: _____</p> <p>Location #2: Size: 90 gallon cart ____ 2 cubic yard dumpster ____ 3 cubic yard dumpster ____ 4 cubic yard dumpster ____ Other: _____</p> <p>A. Total yards or gallons (size x number of containers):</p>	<p>Frequency of waste collection (e.g., 1 pick-up/wk)</p> <p>#1: __ 1x per week __ 2x per week __ 3x per week __ 4x per week __ Daily __ Other:</p> <p>#2: __ 1x per week __ 2x per week __ 3x per week __ 4x per week __ Daily __ Other:</p> <p>B. Total No. Pickups:</p>	<p>Percent Full When Emptied</p> <p>#1: #2:</p> <p>C. Average percentage full =</p> <p>Is the dumpster(s) emptied on a regularly scheduled time or on call? Scheduled ____ On Call ____</p> <p>How is the school charged for trash collection? (Weight, number of collections, etc.):</p> <p>Where does the hauler take the trash?</p>
<p>Estimated Monthly Waste Generation</p> <p>Total yards or gallons of waste (A) x Collection frequency (B) x Percent (%) full when emptied (C) x 4.33 = Estimated monthly waste generation</p> <p><i>Example: 4 cubic yards x 2 containers = 8 cubic yards x 2 pick-ups per week x .90 full x 4.33 = 62 cubic yards of waste generated per month</i></p>		

Information in this booklet is believed to be accurate. The District disclaims any liability for errors or omissions. Referrals to other sites are intended to be informational and do not have the endorsement of the District.

Educational Resources

www.epa.gov/kids - activities, games and information for kids
www.epa.gov/teachers - teacher resources on environmental topics
www.epa.gov/epawaste/education/pdfs/toolkit/tools-i.pdf - sample announcements to promote recycling
www.recycleguys.org – resource for teachers and kids
www.earth911.com/teachers - games, activities and resources about the environment
www.myschoolrecycles.com – Office Depot collects ink toner and small electronics and rewards schools
www.earthforce.org – engages young people as active citizens improving the environment
www.plt.org – Project Learning Tree – environmental education program for teachers
www.greenschools.net – information on how to green your school
www.edutopia.org/go-green - environmentally conscious teaching tools
www.wastefreelunches.org – waste free lunch program

Funding Opportunity Resources

www.fundingfactory.com www.thinkrecycle.com www.greenschoolfundraiser.org
www.cartridgesforkids.com www.curerecycling.com www.envirosmart.org
www.elmersgluecrew.com www.greenschoolproject.com www.rrewards.com
www.greenschools.net

Recycling Contact Information

www.butlercountyrecycles.org – Butler County Recycling & Solid Waste District
www.rumpkerecycling.com – Rumpke Recycling
www.republicservices.com – Republic/CSI Recycling

Recycling Bins & Containers

www.recyclingbin.com www.buschsystems.com www.midpoint-int.com
www.rehrigpacific.com www.officedepot.com www.clearstreamrecycler.com

This list is not exhaustive. Other vendors are available.



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www.butlercountyrecycles.org

Butler County Board of Commissioners