Recycling and Waste Reduction
a Guide for Schools

Schools accumulate tons of waste, from paper and computers to food and books. By learning how to handle these wastes as a resource, school officials have an opportunity to save on costs and positively influence the future of their school, district, and students, while preserving the environment.

Why Recycle and Reduce Waste?

To protect the environment: Reducing waste, reusing materials, recycling, and buying recycled products lessons a school or school district's impact on the environment by:

- Saving energy
- Cutting greenhouse gas emissions
- Diminishing the need for raw products to make new materials
- Decreasing the amount of materials put into landfills

To reduce costs and make money: Like other businesses, schools pay for waste disposal. In many cases, recycling services cost less than trash disposal. Schools and districts that make an effort to recycle can see significant savings in trash disposal costs. In some cases, recycling may even allow your school to raise revenue through the sale of recyclables. Decreasing the use of materials such as office paper also reduces purchasing, handling, and storage costs.

To educate tomorrow's citizens:

Opportunities for Environmental Education—
By implementing recycling programs in schools or districts, teachers and administrators demonstrate environmental responsibility and good decision making. School recycling programs also offer hands-on, real-life project-based learning opportunities to teach students about sustainability. Environmental education provides an integrating base to learn about economics, current events, and environmental policy and laws.

Opportunities for Service Learning—
School recycling programs also allow for service-learning by offering hands-on experiences that go beyond classroom learning. For example, students might participate in community waste collection days or share recycling tips with neighbors. Service learning provides students with valuable experience volunteering in the community and teaches new skills such as communications, team-building, critical thinking, and decision-making.

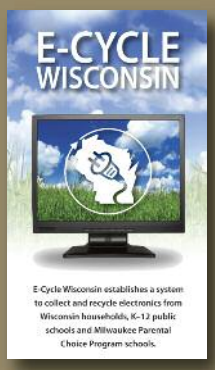
What Should Be Recycled in Wisconsin?

- Aluminum, glass, steel and bi-metal containers (tin)
- Plastic containers #1 and #2, including milk jugs and detergent, soda and water bottles
- Magazines, catalogs and other materials printed on similar paper
- Newspaper and office paper
- Corrugated cardboard
- Computers, televisions, desktop printers, computer peripherals, DVD players, VCRs, digital video recorders, fax machines, and phones with video displays
- Major appliances including air conditioners, clothes washers and dryers, dishwashers, refrigerators, freezers, stoves, ovens, dehumidifiers, furnaces, boilers, and water heaters
- Yard trimmings, including grass clippings, leaves, yard, and garden debris
- Lead acid vehicle batteries, automotive waste oils, and waste tires
- Oil absorbents and used oil filters

Recycling is enforced by banning a material from disposal at all Wisconsin landfills. Some communities go above and beyond what is required by law. Check with your local recycling program to find out what additional materials are accepted for recycling in your community.

E-Cycle Wisconsin

A number of electronics, including computers, printers, and TVs, are now banned from Wisconsin landfills and incinerators. All schools must either recycle electronics or manage them as hazardous waste.



K-12 public schools and Milwaukee Parental Choice Program schools may take advantage of the E-Cycle Wisconsin program to recycle electronics. E-Cycle Wisconsin provides a network of electronics recyclers in the state. If your school already works with a reputable recycler, you don't need to change. However, contracting with a registered E-Cycle Wisconsin recycler may save your school money.

E-CYCLE WISCONSIN

For more information, visit *dnr.wi.gov* (search: *E-cycle*)

Five Steps for Creating a Successful Recycling Program

1. Organize a Green Team

Identify team members —

Organize a team to help plan, design, implement, and maintain your recycling program. Your team should meet as needed to keep the program moving forward.

Include individuals from the school or district and community including:

- **Administrators**
- **Teachers**
- **Custodians**
- **Parents**
- **Students**
- **Other volunteers**

Your team should include at least one person who is familiar with the school or district's overall operations, such as a custodian or an administrator. One team member should act as a liaison with local community recycling staff or a Department of Natural Resources regional recycling specialist for assistance, and to ensure compliance with all local and state ordinances. The size of your team will depend upon the size of the school or district and its individual departments/operations. Schools or districts can ask for volunteers or appoint members.

Members might be responsible for activities such as:

- **Gaining support from school or district officials to initiate a recycling program**
- **Working with school or district officials to set the preliminary and long-term goals of the recycling program**
- **Gathering and analyzing information relevant to the design and implementation of the program**
- **Promoting the program to other employees and students and educating them on ways to participate**
- **Monitoring program progress**
- **Reporting to school or district officials about the status of the program**

2. Know your trash

Conduct a waste assessment to identify the types and amount of waste your school or district is producing. This activity can be as simple as asking your maintenance staff (janitorial and cafeteria) to calculate or estimate the amount of waste your school or district throws away. This assessment will help identify current methods of handling waste and start you thinking about how these methods can be modified to make your school or school district more environmentally friendly and sustainable. For a sample waste assessment, visit the Wisconsin Green & Healthy Schools Program, *dnr.wi.gov* (search: *WI Green & Healthy Schools*).

During a waste assessment, schools and districts typically find:

- Paper (office and other mixed paper, magazines, catalogs, and newspaper)
- Corrugated cardboard
- Aluminum and steel cans
- Plastic bottles
- Toner and ink cartridges
- CDs and DVDs
- Food scraps
- Computers, TVs, printers, and other electronics
- Fluorescent light bulbs
- Food waste from the cafeteria

Specifically, a waste assessment will:

- **Identify waste generated at the school or district, as well as current purchasing and management practices**
- **Examine current waste reduction practices and assess their effectiveness**
- **Identify waste that could easily be reduced, reused, or recycled**
- **Identify which materials would be most effective and efficient to recycle**
- **Establish a baseline for measuring progress of recycling efforts**

3. Create a green game plan

Identify materials to target —

Using the waste assessment results, determine which materials your program will focus on. Remember to take into consideration any local programs that will make it easier to find options for reusable and recyclable materials.

Consider options for collecting and storing materials —

You will need to gather or purchase bins to collect recyclables in classrooms, cafeterias, and other areas. You may also need large containers to store recyclables before they are picked up by a hauler or sent to a recycling center.

- **Decide if you will need different bins for different materials.**
- **Determine which type of bins will be used to collect materials in classrooms, offices, halls, the library, and the cafeteria.**
- **Label your bins. Signs should be used to identify which materials are collected in which bins.** Download recycling signage at *dnr.wi.gov* (search: *Recycling Education*)
- **Place your bins appropriately. Recycling bins should always be placed next to a trash can–never alone.**

Depending upon the program, materials may need to be collected from bins throughout the school and moved to an onsite storage facility. To make sure this type of collection is possible, determine:

- **If storage space is available for the collected materials.**
- **If the school or district has indoor space to use as a collection and storage center.**
- **And, alternately, if there is room for a large container outside with truck access.**

Setting Goals

Check out these waste reduction ideas!

Waste Prevention Goals

- **Print and copy all documents in the duplex setting**
- **Use the Internet for research assignments to reduce paper use**
- **Make memo pads out of scrap paper**
- **View information electronically instead of printing hard copies**
- **Reduce handouts distributed or consider sending these electronically**
- **Have a waste-free lunch day**
- **Use email for parent correspondence**

Reuse/Donation Goals

- **Designate an area in the school for a "student supply exchange." Students can be encouraged to leave (or take) items, such as pens, notebooks, etc.**
- **At the end of the school year collect unwanted supplies for use in the upcoming school year**
- **Donate furniture or electronics to a local charity**
- **Collect unclaimed items from lockers at the end of the year to donate or reuse**
- **Use reusable trays, utensils, and dishware in the cafeteria**
- **Use old magazines for art projects**

Other Goals

- **Hold a recycling competition among classes or grades**
- **Start an environmental club**
- **Join the Wisconsin Green & Healthy Schools Program**
- **Complete the loop by buying products with recycled content; discuss purchasing options with school officials to purchase recycled materials when possible**

Establish a tracking system —

Data on the recycling program will be important to track effectiveness, identify successes, and show its strengths and weaknesses. Before starting, develop a way to track progress. Simple spreadsheets detailing collection efforts work well for individual schools. Another option would be to join EPA's WasteWise program, which provides forms, instructions, and technical assistance.

Set goals —

Goals can be numerical (e.g., collecting X tons of paper annually), activity-based (e.g., collecting a new material or undertaking a new effort), or monetary (e.g., saving a certain amount of money on disposal costs). The entire program focus can be on one material generated in large quantities, such as paper or plastic bottles, or perhaps a once-a-year issue, such as old textbooks. Whatever they may be, make sure goals can be tracked and measured.

District-wide considerations —

If the program is district-wide, a few additional decisions will need to be made. Will participation in the program be mandated at all schools or voluntary? Will the schools be able to select the activities that work best for their location (recommended) or will all schools have to perform the same activities?

Develop a budget and get the (other) green —

As you develop the budget, evaluate the availability of material resources and services at the school or district. Ask yourself:

- **Does the school or district already have recycling bins or will you need to purchase new ones?**
- **Can you apply for a grant to purchase recycling bins? Check the Wisconsin Green & Healthy Schools Program for information on recycling bin grants.**
- **Can you adjust your current waste management contract to cover recycling collection?**
- **Do you need to hire a hauler or can you drop the materials off at the local recycling center?**
- **Can the schools or districts team up with other schools or districts to share transportation and/or storage costs?**

Materials pickup —

Different options to transport collected recyclables include:

- **School personnel or volunteers drop off recyclables at a vendor or municipal recycling center**
- **Work with the current waste hauler to include recycling in your contract**
- **Hire a recycling or waste company to pick up recyclables**

The best option for a school or district will depend upon the program type, budget, and school or district policies.

Hiring a company to pick up materials —

Start by asking the current waste hauler if they offer recycling services. If not, ask neighboring businesses or districts who they use for recyclables or contact local recycling staff. A local hauler doing pickups in the neighborhood may offer decreased pickup costs since the company is already servicing the area. If no one in your area has recycling services, check the local telephone directory under "waste management" or "recycling" to find companies that do.

When contacting a new company, here are a few questions you should ask:

- **What services do you offer?**
- **Do you transport the materials?**
- **How and when will I be billed?**

After speaking with the vendor, be sure to check references! Obtain and thoroughly check the company's references with existing contract holders, asking these organizations specifically whether the company is fulfilling all contract specifications.

Tell it to the people —

Notify the entire school or district and the surrounding community about your recycling program. Explain how it will run, why you have a program, and how members of the community can get involved.

Faculty and staff might be interested in helping design the program's educational component. Integrating creative recycling education activities and lesson plans into current classroom curriculum creates buy-in for both teachers and students, helping to generate interest on behalf of the faculty, staff, and students. Suggestions to jump-start the program include:

- **Send e-mails, flyers or letters home with students or group members to inform parents and others of program specifics.**
- **Display posters and written messages (on chalkboards or in chalk on sidewalks) around the school.**
- **Make announcements during school, at staff meetings, and at PTO meetings.**
- **Hold a special assembly or presentation to kick off the program.**

Wisconsin Green & Healthy Schools

Schools across Wisconsin are demonstrating their commitment to a more sustainable earth, stronger communities, and healthier, more productive learning environments for students by choosing to join the Wisconsin Green and Healthy Schools program. The Wisconsin Green and Healthy Schools program is a web-based, self-paced, and voluntary program available to all Wisconsin public and private elementary, middle, and high schools. The program is designed to support and encourage schools in their quest for a healthy, safe, and environmentally-friendly learning environment. By participating in the program, students learn about the environmental, health, and safety challenges facing our state, and are given skills to address these challenges throughout their life.

Green & Healthy School

dnr.wi.gov
(search: *Green & Healthy Schools*)

Involve Students

Encourage students to participate through classroom lessons and/or extracurricular activities. By actively contributing to the school program, students will gain a sense of ownership and will likely enlist their peers. Students can become involved in many ways, including the following activities which are examples from Wisconsin school recycling programs:

- **Start or encourage other students to join an environmental club.**
- **Collect and sort materials by type.**
- **Monitor recycling bins to reduce contamination.**
- **Participate in school-wide assemblies to increase enthusiasm for the recycling program.**
- **Enter school-wide or district-wide contests to name the program or design a poster or other educational materials.**

- **Write articles for the school, school district, or community newspaper about the program or the importance of waste reduction and recycling.**
- **Manage parts of the school's recycling program. Don't forget to ask for volunteers and reward students for their participation, if not already part of a classroom lesson.**
- **Send press releases to local newspapers and radio and TV stations to encourage the community to participate.**
- **Use materials created by the Wisconsin Department of Natural Resources (DNR) about reuse, recycling, and composting. Search Recycling Education on the DNR's website, dnr.wi.gov.**
- **Create a "reduce, reuse, recycle" website, e-newsletter, or listserv.**
- **Print articles about the recycling program in a school newspaper or newsletter.**

4. Get started!

It's time to launch the new recycling program! A great way to get the whole school involved and excited is to hold a school-wide kick-off event. These events provide an opportunity to encourage participation and explain what the program seeks to accomplish.

Monitor and measure your progress —
Program monitoring and evaluation is a crucial element of any recycling program. By making regular evaluations, problems like contamination can be dealt with immediately. Monitoring the program also makes it easy to track results and measure progress. Gather information on the amount of materials recycled, expenses, and cost savings to quantify the environmental and economic benefits of the program.

Celebrate the green success —
Within the school or district, consider setting up a competition among schools, classrooms, or grades and offer the winner a reward. A reward system can provide stronger incentives to make your recycling program successful.

Share your successes with the community —
Letting the community know about your recycling efforts demonstrates environmental stewardship. Provide regular program updates to parents and the community through email, school or community newspaper articles, and at local or school events.

Gain state and national recognition —
Consider joining the **Wisconsin Green & Healthy Schools Program** (see box on preceding page) or **EPA's WasteWise Partnership Program**. Both programs provide schools with additional assistance and recognition.

5. Review, recheck, regroup, and start again

Ask for feedback from students, faculty, and staff to determine which activities work. Expand on successful activities. Be flexible and make changes as the program grows or circumstances change.

Asking students, faculty, and staff some of these questions will help determine the success of the program:

- **What is successful about the program? What isn't successful?**
- **Are there an adequate number of recycling bins? Are they easily accessible? Are they clearly labeled and identifiable?**
- **Did you notice any contamination problems? If so, what kind of contamination?**
- **Is the educational aspect of the program helpful?**
- **Do the incentives help motivate participants?**
- **Do you have any suggestions for improving the program?**
- **What questions or concerns do you have about the program?**

School Composting

Every school day each student generates about two pounds or more of compostable materials, such as food scraps and soiled paper. Composting these materials can help schools significantly reduce their waste. It is an activity that can be integrated into school curriculum, providing hands-on learning opportunities in science, math, and other disciplines. Composting is a natural recycling process that uses decomposition to break down organic waste—like food scraps, soiled paper, leaves, and grass. With the help of beneficial organisms, such as insects, worms, and bacteria, organic debris is decomposed to form a nutrient-rich soil enhancer.

"Offering recycling is just another way to better serve your community."

Resources

Wisconsin Green & Healthy Schools Program
dnr.wi.gov (search: *Green & Healthy Schools*)

EE in Wisconsin
eeinwisconsin.org

EEK! Environmental Education for Kids
dnr.wi.gov/eek

EPA's WasteWise Program
epa.gov/wastes/partnerships/wastewise/index.htm

Associated Recyclers of Wisconsin
arow-online.org/

Keep America Beautiful
kab.org

Recycle More Wisconsin
recyclemorewisconsin.org/

Wisconsin Department of Natural Resources, Recycling Program
dnr.wi.gov (search: *Recycling Education*)

University of Wisconsin-Extension, Solid and Hazardous Waste Education Center (SHWEC)
http://www3.uwm.edu/Dept/shwec/

Wisconsin Department of Natural Resources
Bureau of Waste and Materials Management/WA/5
P.O. Box 7921
Madison, WI 53707-7921

For more information on away from home recycling, or to order publications, contact *DNRWasteMaterials@Wisconsin.gov* or (608) 266-2111.

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