ABC's of Recycling It's Elementary



Every day American businesses and schools generate enough paper to circle the earth 20 times!

Schools help to minimize the impact waste paper has on the environment by recycling in classrooms and offices. Recycling paper is a good start, but many schools need to recycle more, and they want to know how. This guide is designed to help elementary schools maximize their recycling efforts. It goes beyond explaining the requirements of State and local ordinances and shows you how your school can develop a model recycling program with far greater benefits than simply reducing waste. Your school and your community will gain a broader understanding of the connections that exist between recycling and the conservation of energy and other natural resources.

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Essentials of School Recycling

The Basics:

The primary purpose of recycling is generally understood and accepted as a worthy cause. Yet, most people don't realize the full impact that recycling can have. Recycling is not only beneficial to the environment, but it can benefit your student body, teachers, administration, and support staff as well. The "Essentials of School Recycling" outlines what is needed to adequately meet recycling requirements for schools in Pierce County. Beyond that, it explains how to realize the maximum benefits of recycling by suggesting appropriate bins, labels and lists for recyclables.

In addition, by following Steps B through E, you will learn how your entire school can be motivated to help maximize recycling. It is a chance for your school to take ownership and pride in their own recycling program. Promotional ideas, fundraising opportunities and educational resources are just a few of the subjects covered through these steps. Included with this guide are examples of recycling bins appropriate for school recycling and links to activities, lessons and games to help teachers bring recycling into the classroom. The entire guide is available electronically on our county website www.co.pierce.wi.us/solid_waste/sw_main.htm. Click on School Recycling Guide.



Defining Recyclables:

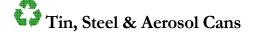
In 1989, the State of Wisconsin passed legislation that banned recyclable materials from landfills. Today, the list of recyclables includes materials such as paper, cardboard, and containers made of tin, aluminum, glass and most plastics. Wisconsin's ban on recyclables in landfills makes it unlawful for any person or organization to dispose of any recyclable materials. Therefore, adequate and conveniently located recycling bins must be provided to ensure efficient collection of recyclables from all school operations.

What Can Schools Recycle?

Mixed Containers







Glass Bottles & Jars

Please Remember!

- Empty Contents
- Remove Lids
- No Other Plastics
- No Other Glass

Mixed Paper





Magazines, Catalogs & Phone Books

Newspapers & Mail

Corrugated Cardboard

Packaging Cardboard

Please Remember!

- Remove Binders (Staples are OK)
- No Plastic Covers
- No Pizza Boxes
- No Wax Coated Boxes
- Flatten Boxes & Remove Packaging

Placement of Recycling Bins:

Convenience is the key to any successful recycling program. Providing adequate recycling bins next to all trash containers will ensure that there is always a convenient choice between trash and recycling. The following table indicates the recycling recommendations for each area of the school. A catalog of bins well suited for school recycling purposes can be found at the back of this guide. This is provided to reduce the amount of research schools might otherwise do on their own. Other options may be equally effective as you will see in the suggestions throughout this guide. Please note that all activities within and on school grounds have been considered for the purpose of this guide.

LOCATION	MIXED PAPER	MIXED CONTAINERS	RECOMMENDATIONS
Classrooms		C	Place recycling bins next to trash bins. Use separate recycling bins for each.
Halls/Entries	C	C	Place both bins near lockers. Monitor other locations to determine need for paper bins.
Offices	C	C	Provide both bins in common areas and place small mixed paper bins by each desk.
Break Rooms		C	Place mixed container bin next to trash bin. A small mixed paper bin may be needed.
Lunchrooms		C	Provide distinctive recycling bins for mixed containers. Place next to trash bins.
Common Areas		G	Place recycling bins next to trash bins.
Sport/Outdoor Facilities			Permanently place distinctive recycling bins next to all outdoor trash bins.



Prepare to Recycle:

The collection of all recyclable materials requires sufficient infrastructure to handle the volume of materials generated. Recycling bins must provide students, employees and the public with the convenient option to properly separate recyclables from the trash. In turn, the service for storing and hauling recyclables must also be sufficient to handle the anticipated volume. Administrators should advise custodians and teachers to monitor recycling and prepare to make adjustments as needs change.

Budgeting:

A recycling program should be considered an investment in the welfare of your school and the environment. Your school will not only provide students with an education in recycling, it will encourage a lifetime of good recycling habits. The monetary pay off will be seen with the savings in waste disposal fees. As your waste disposal needs shift to a larger volume of recyclables,



there will be less need for trash disposal, and as a result a reduction in costs. Furthermore, when your school sees how one simple initiative can produce so many positive changes, the benefits of other environmental initiatives may be seen as the next step toward a greener, healthier school.

Make Recycling Clear:

Posting a list of accepted items on or near a recycling bin can serve several purposes. It informs people of what can be recycled and it serves as a reminder to recycle in general. It can also list what can't be recycled and serves to reduce the amount of contamination. A well-designed sign that lists recyclables can generate interest and encourage people to recycle correctly. Images are effective in making it easy for someone to reference an item they might question. Making it clear encourages them to find the right answer.



Labeling Recycling Bins

Labels for recycling bins typically include the easy to identify chasing arrow symbol along with a brief description of the contents. Clear labeling helps assure that the bins are used for their intended purpose, but labeling can also encourage people to recycle. Promoting recycling shows the types of paper and containers that can be recycled, and many are surprised by what they didn't know.

Personalizing labels and signs for individual school recycling programs have proven to be most effective in motivating students to recycle. This topic is discussed further in Step B under Creating a Recycling Program.

The labels below were produced in order to provide your school with ready to use labels for the interim between bin installations and the development of your own initiative. These labels can be found in a larger format at website www.co.pierce.wi.us/solid waste/sw main.htm. Click on School Recycling Guide. The Recycling Bin Labels link will bring you to a printable version.





Hazardous and Special Waste Disposal

It's important for schools to know what type of waste materials are hazardous and can't be disposed in the trash. These materials must be carefully handled and disposed of in a controlled manner. The Pierce County Material Recovery Facility (MRF) accepts most of the hazardous and special waste items that can be found in schools. See the Pierce County Recycling Guide or website for further details, dates of hazardous waste collection events and handling fees.

Hazardous Waste Items Accepted During Clean Sweep Events:

Hazardous Chemicals: Chemicals in cleaners, heavy duty degreasers, paint and glue solvents, pavement sealers, fertilizers, insecticides and many other items can be extremely toxic. Read labels for warnings and cautions. If labels are unclear or the contents unknown, don't take any chances, bring all known and unknown hazardous chemicals to a hazardous waste collection. Share usable products with others who are able to use them.

Mercury: Mercury is extremely toxic to humans and must be safely contained until it can be properly recycled at a hazardous waste collection. A single mercury thermometer contains 1 gram of mercury, which is enough to contaminate a 20 acre lake where it accumulates in fish and animals. Mercury can be found in a liquid form in electronic switches, thermometers, button batteries or stored in science class rooms.

Oil Paint and Liquid Latex Paint: Oil based paints need to be handled as hazardous waste and can be disposed of properly at a Dunn County hazardous waste collection. Latex paint is not hazardous but can not be placed in the trash in a liquid form. If the amount remaining is small, dry the latex paint in the can by simply removing the lid and allowing enough time for it to dry completely. Add floor dry material or cat litter to help dry paint when the can is less than half full. Leave the cover off the can to assure waste handlers that it is dry. When you have more than ½ can of usable paint, try to find other uses for it instead of throwing it out. You may find a theatre group, art class, charity or individual that can find a use for it as well as other reusable items.

Special Waste Items Accepted Year Around For A Fee:

Appliances: Appliances such as freezers, refrigerators, dehumidifiers and air conditioners contain Freon which must be handled by a licensed processor. A small fee is assessed to cover the cost of handling and Freon recovery. These and other non-Freon appliances may be taken to the Pierce County MRF year around.

Electronics: Televisions, Computers, monitors, printers and other electronics need to be recycled. Residents and businesses may recycle their electronics for a small processing fee at the Pierce County MRF. Companies that process old electronics will sometimes arrange pick-ups for schools and businesses.

Fluorescent Light Bulbs: All fluorescent bulbs contain mercury. When bulbs are broken the mercury vapor is released and can concentrate on surrounding surfaces or it may find it's way into lakes and streams. While the quantity of mercury has been reduced in newer "Eco" bulbs or "Green" bulbs, businesses and schools still need to treat them as hazardous waste items. Save used bulbs in a safe location in the packing box the new bulbs came in to insure safe transportation. They are accepted year around at the Pierce County MRF.

Tires: It's important to recycle tires properly and not store them outdoors where water can collect inside and provide a habitat for mosquitoes. Tires can be recycled or reused for other purposes. Some schools use chipped rubber from tires in their outdoor play areas and large equipment tires make great sandboxes. Reuse what you can and recycle the rest for a small fee at the Pierce County MRF.

Propane Tanks: Schools may generate quantities of the small canister bottles or the larger 20 to 30 gallon variety. They should not be disposed of in the regular trash. They can be recycled at the Pierce County MRF.

Special Waste Items Accepted Year Around At NO COST:

Waste Oil and Filters: Waste oil and used oil filters are accepted at the Pierce County MRF. Drain oil from filters for a minimum of 12 hours. Some service stations also accept waste oil as a service to their customers.

Anti-Freeze: Used anti-freeze is accepted at the Pierce County MRF at no cost. It must be free of contaminates such as gas, oil and solvents.

Batteries: There are many different types of batteries that can be found in schools: **Rechargeable batteries** (lithium "button", sealed lead acid, nickel cadmium, etc.) from tools or other devices need to be recycled to retrieve the toxic metals and keep them out of landfills. **Standard alkaline batteries** can be disposed of in the regular trash. **Automobile batteries** will be accepted for recycling at any business that sells them. These and other rechargeable batteries may be taken to the Pierce County MRF.

Scrap Metal: Steel, cast iron, copper, aluminum and tin are the typical metals sought by recyclers. These recyclers will pay well for premium grades so it may be worth it for schools to take another look at those old desks and lockers when it's time to replace them. Recycling metals conserve valuable resources including landfill space. The Pierce County MRF accepts all metals at no cost.

See the Pierce County Solid Waste website for Clean Sweep events and a complete list of accepted materials and handling fees. The list of Special Waste materials indicates items that can be brought to the Material Recovery Facility (MRF) year around.

Go to www.co.pierce.wi.us/solid_waste/sw_main.htm and select from the list provided.



Motivation to Recycle

Creating a Recycling Program:

Having the right recycling bins in all the necessary locations will improve a schools recycling rate, but recycling can offer many more opportunities beyond the reduction of trash. This section will help you develop a recycling program that gets students involved in promoting recycling and teaches them about the process through activities and lessons in the classroom.

By now, the County Recycling Education Specialist has been to your school and evaluated your recycling program. This step helps guide you through the process of improving your school's recycling by suggesting ways to involve staff, parents and students in your program.

Recycling Work Group

Your school's administration needs to commit to establishing a highly-effective recycling program and share this commitment with parents, students, and staff. Parents can play a critical role in the success of this program.

As with other programs in your school, a good way to begin is to present the initiative to the PTO, PTA and other parent groups. Next, set a date for a recycling work group meeting. Inform parents of the schools new initiative and invite them to participate (template available at website

www.co.pierce.wi.us/solid_waste/sw_main.htm. Click on School Recycling Guide. Including custodians and office staff is also a good idea since they handle much of the recyclable material in your school. The advice of custodians will be helpful and they can answer questions about collection or storage of recyclables. The County Recycling staff can help you with developing an action plan for this meeting.

At the meeting, discuss your school's recycling program and where improvements can be made. It might be fun to start the meeting with the recycling quiz provided in this guides supplemental folder. You'll discover how well informed your group is. Also, choose a staff person or volunteer to organize and foster the initiative. It's important to have a good motivator



Decorating recycling bins makes it easy to tell the difference between trash and recycling.

and someone who will encourage creative ideas and make it fun. It's also important for this person to keep the effort moving by assigning tasks and working with staff to organize student efforts. Parent volunteers or school staff members can be helpful in planning and organizing student activities such as making signs and posters, decorating recycling bins, organizing contests and locating materials for projects. It's a good idea to give anyone, who may be interested, the opportunity to get involved.

Student Involvement

Allowing students to be involved in their school's recycling promotions is the best way to encourage all students to recycle. Students gain a sense of ownership and pride in their recycling program by being included in the process. It also offers an opportunity to learn more about the benefits of recycling so they will know why we do it.



School-wide Activities

The Recycling Work Group should develop and initiate a school-wide approach to promoting recycling. There are many ways this can be done. Working with existing student groups might be the easiest way to involve students. The Student Council, gifted student programs, special needs students, and other established groups, such as the Scouts, are already organized and may be looking for special initiatives to work on.

However, there are certain advantages to creating a new group that will be focused specifically on promoting recycling in the school. You can select students who will represent a variety of ages and backgrounds. They can provide ideas on how to best motivate other students to recycle. Offering students this opportunity to be a part of the process will help establish the best methods of communication while giving them ownership in the program. Once established, give your committee a fun name to boost spirits and generate interest. "The Green Team" is a good example that other schools and even businesses are using.

This group can also help determine what others need to be told about recycling. Once this is known, you're ready to make a plan and decide the best way to do this in your school. The list of resources, beginning on page 19, will link you to websites that demonstrate excellent school recycling programs, lessons, activities and information on recycling.

If posters, signs or labels for recycling bins are part of your plan, it's a good time to practice one of the other 3 Rs (Reduce, Reuse, Recycle) and "Reuse" materials that may otherwise be thrown out. Consider all resources available and remember that materials like paint, cardboard, lumber, hardware and other used materials are plentiful at little or no cost. Using them reinforces your message since "Reuse" is even better than recycling!



Painting murals or recycling bins can create a lasting message for both the artists and the viewers. If you are planning to paint, make sure the paint is compatible with the work surface. Some surfaces like smooth plastic or glossy walls may need to be prepped for latex paints. Oil paint should be avoided since it contains toxins and is difficult to clean up. Ask maintenance staff for advice and do some testing for durability. Check your local paint store or reuse center for miss-mixed paints that might be donated or purchased at a low cost. Other materials can be found this way too. Some printers provide ends of paper rolls for free, Cardboard is easy to find, and magazines are great for collages. When you think about it, most households have plenty of useful materials that can be applied to these projects.



A poster or art contest can be organized that encourages parents to get involved. Send instructions home that explain the reasons for this project and outline the objectives of promoting recycling and reusing materials. Judging can be based on most creative reuse of materials and best recycling message. If the contest has different categories like sculpture, drawing and painting, there can be more than one top prize. No matter how you judge it, students and parents come out winners by gaining a better understanding of reuse and recycling.



When students help collect recycling, they get to see the volume of waste the school produces.

Classroom Activities

For students to fully embrace recycling it will need to be incorporated into their daily lives. Recycling bins in all hallways and classrooms is a start, but when recycling is made part of the curriculum it will be easier for the students to develop good recycling habits. One way to bring this into the classroom is to have students decorate their own classroom recycling bin. It is a great opportunity to let them use their creativity while teaching them about recycling.

Art and science teachers may also want to take a lead role in the school's recycling program by developing recycling goals for your school and turning them into practical learning experiences in

the classroom. Through demonstrations, charting the recycling progress and composting food wastes students gain knowledge by seeing the process work. More information on setting goals and measuring success can be found in Step C.

Students of all ages and abilities can share in the fun of learning about recycling. Sample programs, lessons, games and activities are included in this guide and are available on the County's website at www.co.pierce.wi.us/solid_waste/sw_main.htm. Click on **School Recycling Guide.** There is also a list of links to internet sites focused on recycling and kids starting on page 19.



Recycling committees and student campaigns can be organized in different ways. Some schools have better opportunities to afford staff time and investments in the recycling initiative. Others may rely on parent volunteers or other organizations to help them organize student campaigns. The steps presented here are suggestions to help lead the way. Since other schools in your area will also be developing recycling campaigns, perhaps ideas and success stories can be shared. What's most important is that students and staff alike feel good about recycling and know how their efforts are helping to improve their environment.

Celebrate! It's Time to Recycle:

Holding a kick-off event to celebrate your hard work is a great way to include the rest of the school in the goals that you've set. It's also a good idea to invite members of the School Board, community leaders and local media so the rest of the community will be aware of your school's recycling efforts.

This is also a good time to educate people about recycling. There are many games and contests you can use to make the education fun and memorable. Ideas, suggestions and web links filled with helpful information can be found in Step E of this guide.









Keeping it Going - Generating Enthusiasm

Setting Goals and Breaking Records:

Schools all over the country have applied their natural enthusiasm to recycling and found new ways to make schools "greener" and healthier for the environment. This section offers advice on how schools can keep their programs active and continue encouraging recycling into the future.

Making Recycling Exciting:

Students in many schools have been energized to recycle by getting involved in competitions and being challenged to meet goals. Competitions for best artwork, best reuse of materials, or any theme that



Students sort recyclables and draw attention to their recycling campaign.

suits the purpose will encourage students to recycle. Students can then vote for their favorites or a committee might choose the winners. Classes competing for highest recycling rate will continually be reminded to recycle. If calculating the volume of recycling isn't practical, it might be easier to base the competition on having fewer recyclables in the trash. It might be fun to form a group of inspectors, waste watchers, recycling police, etc. or maybe it's the Principal wearing a detective's hat who surprises a class with a spot inspection. You can use the opportunity for a quick lesson on what to recycle and remind them of why it's important.







Measuring Success:

Recycling rates can be measured in several ways. The current volume of trash and recycling can be established by asking custodians to estimate the levels based on the number, size and average volume of waste in dumpsters. This might not be statistically accurate, but it will establish a fair representation of these volumes and give you a good starting point. More accurate measurements can be taken by gauging the level of trash and recycling on pickup days. The need for more or larger recycling bins and the reduction in trash bins will be a landmark occasion and a testament to the success of the program.

For contests, more accurate measurements may be needed. A large scale is the best tool for this. One might be available in the school, as even an old nurse's scale can be used. With a little ingenuity, a balance scale can be devised. Ask an industrial arts or science teacher for assistance.



Another way to gauge the success of the program is to monitor the savings on the disposal of trash. This may require monitoring over a longer period of time since many schools are under contract with their haulers and service can't be changed until the contract is renewed. Work with the hauler and make changes to your service plans as your needs change. Your school should see a substantial drop in the need for trash disposal as you implement your initiatives to reduce waste, increase recycling and perhaps even start a composting program.







Generating Revenue from Recycling

Profit from Recycling:

When schools increase their recycling rates, the savings on disposal fees can be far greater than most people would imagine.

Considering the types of disposable materials a school generates and the percentage that can be recycled, reused or reduced, the average school has the potential to cut trash volumes in half. Before we explain how this is possible, let's look at the numbers. How much does your school pay for the collection of waste? Check with your waste hauler for a breakdown of costs. Collection

fees are less for recycling, because haulers can recover some revenue from it and they also save on landfill fees. If the recycling rate can double and additional efforts are made to reduce trash, the potential savings can be significant with a place as large as a school.

Is it Waste or Recycling?

Actually, it's a trick question. People who work in the field of recycling include recycling as part of the waste stream. The real question is, is it recyclable or is it trash? Knowing more of the answers to this question will help schools reduce the amount of trash they discard.

Most schools already do a fairly good job of collecting paper in the classrooms and offices. Corrugated cardboard is also commonly recovered at most schools. The kitchen staff recycle the tin cans, plastic and glass bottles generated from preparing lunches. Many schools with vending machines have bins for mixed containers near the machines, and some save aluminum cans for fundraisers. If all of this is already being done, what more can we do to increase recycling, reduce trash and save money?



Container Recycling:

This is the area of recycling where schools have the most to gain. Most schools generate large volumes of plastic bottles and other recyclable containers from sources within and outside the school. Elementary schools will soon see plastic milk bottles as companies switch over to this cheaper alternative. Since waste charges are by volume and not weight, schools that do not provide convenient recycling for bottles and cans end up paying for the air inside each one.

Most schools have a limited collection system in the school and outdoor athletic facilities are frequently overlooked. For elementary schools that don't allow beverages to be brought in lunches, this is not as much of a problem. However, after school events, visitors, staff and work crews are likely to discard beverage bottles or cans. Providing a mixed container recycling bin next to each trash bin makes it easy. It's just a simple matter of choosing the right bin. Collecting more plastic and glass will greatly reduce the volume of trash and the school will likely see a direct savings on waste hauler fees.

Paper Recycling:

A few commonly overlooked paper items include post-it notes, tissue boxes (tissues can be composted), cardboard backings from blister packs (ie: marking pens, toys) and programs from special events. When you really start to study what your school throws out, you'll be amazed at how much of it could be **reused** (like the backs of printed paper), **reduced** (by not printing it in the first place), or recycled (by making sure everyone knows what can be recycled). The recommendations in this guide will help your school divert more paper and cardboard from the trash, which saves money and lessens your school's impact on the environment. It's a win, win situation!

Fund Drives – Profit from Recyclables:

Many schools or organizations within the schools already benefit from the collection of aluminum cans. Currently, the market is very good for aluminum so it is an excellent opportunity for raising funds. What may not be known is that scrap dealers will often pay premium prices to schools and other organizations. The dealer benefits from receiving a larger quantity of clean aluminum, and they also want to help a good cause. We've listed some local scrap dealers below but, if transportation is available, you may be able to shop around for an even better rate.

Kadinger's Salvage in Downing – (800) 503-8895

Toy's Scrap & Salvage Corp. in Eau Claire – (800) 657-6940

Max Phillips in Eau Claire – (715) 832-3431

U Can Recycling in Eau Claire – (715) 379-0750

Louis Recycling in Deer Park – (715) 263-3134

Norma-Cycle in Chippewa Falls – (715) 720-7777



Recycling Bin Advertising – Save and Profit:

As the state of the environment draws more attention and concern, some companies are finding ways to resolve environmental problems and turn a profit at the same time. Community recycling is a good example. Two companies were located that offer similar solutions to providing convenient recycling at schools and other public places. Both offer the installation of recycling bins which feature advertising panels on their sides. The ad spaces provide revenue for the companies, so the bins can be provided for free and a portion of the revenue is also shared with the community or school. The companies evaluate the amount of public exposure and the potential for advertising revenue. This appears to be a good option for schools within close proximity to larger cities and schools that hold many events. There may also be a potential for revenue to the schools if local businesses or communities sponsor the bins. The inclusion of this section is <u>not</u> intended as an endorsement. Schools are encouraged to explore this option and request additional information, presentations and references to be certain the system will compliment their own recycling program.

Envirobinz Inc. – Community Based Recycling Bins

Envirobinz Inc. is a company focused on bringing awareness to environmental issues like community recycling. Their objective is to provide communities with bins for the convenient collection of recycling and trash. The banner on top and the color will be customized to fit the school district's theme and school names. 5% of the gross advertising revenue will be shared with the local school district. Up to another 5% will be dedicated to local environmental organizations. The company policy prohibits tobacco, alcohol, or sexually explicit advertising. Features include vandalism proof doors, anti graffiti coating, powder coat paint and galvanized metal for rust prevention. Visit their website or call for further details.



www.envirobinz.com





DP Envyro - Ad Share Program

DP Envyro provides recycling containers to schools and, in return, they earn revenue from the leasing of ad space. Schools receive recycling bins for their outdoor recycling needs. Each bin has space for two advertisements that generate "Ad Share" revenue. Schools receive a small portion of the profits which can help fund other parts of the recycling program. Bins and advertising are maintained by media partners. Ads are approved by the school district based on the district's advertising policy. Visit their website or call for further details.

www.dpenvyro.com/schools.html

Phone (317) 915-1640 ext. 112

Other Recycling Initiatives:

Ink Jet and Laser Cartridges: Printer and copier toner cartridges should always be recycled, and most schools do a good job of diverting them from the trash. These items can also be a good source of revenue from parents and other community members. Organizations such as **Recycle First** and **AAA Environmental Inc.** pay for many types of cartridges. Contact Recycle First at

www.recyclefirst.com or call (888) 777-7359. Contact AAA Environmental Inc. at www.aaaei.com or call (866) 332-2234.



Cell phones: Cell phones are being discarded at an alarming rate. Many people are not aware that the batteries are hazardous and that their old phone can be recycled or even reconditioned and reused for a good cause. Beginning a school collection program is a great way to draw attention to this issue and teach students about electronics recycling. The Charitable Recycling Program is an

international non-profit organization that purchases used cell phones to be reconditioned or recycled. Reconditioned phones are sent to emerging countries and areas in the United States where there is an economic necessity for cell phones for both safety & communication. Learn more at www.charitablerecycling.com or call (800)527-4700 x301.



Composting: Food waste comprises a large percentage of the total volume of waste generated at schools. Every day, students and kitchen staff throw out food that's perfect for composting. Schools like Stowe Elementary in Duluth, MN have developed composting programs and are now enjoying the benefits. (More details can be found at

<u>www.moea.state.mn.us/campaign/school</u> near the bottom of the page.) Reducing the waste stream is the most obvious benefit but composting can also serve as a demonstration for students in science, social studies and other related topics. Students will learn that we can live in a more sustainable manner and schools will have plenty of high grade compost for gardens and grounds.

Composting is a convenient way to discard organic food waste, grass clippings, leaves and small branches. All you need is adequate space (usually fairly small) in a convenient location. When composting is done correctly, it does not smell and it won't attract rodents or other pests. In six months to a year, the compost is ready for use. The following link provides many resources for educating students of all ages about composting and related sciences: www.journeytoforever.org/edu_compost.html



Recycling - An Educational Experience

Making Your School Greener:

Improving your school's recycling habits is a great step toward a more environmentally conscious school. Many schools have begun to teach students how the community can make a positive impact on their environment by using the school building as an example. The Wisconsin DNR (www.dnr.wi.gov) has created the Green and Healthy School Initiative, which outlines steps to be taken to make your school a healthier place and reduce the school's "footprint" or negative impact on the environment.



Other non-profit initiatives are similar in their intent. The Go Green Initiative www.gogreeninitiative.org is a simple, comprehensive program designed to create a culture of environmental responsibility on school campuses across the nation. Founded in 2002, the Go Green Initiative unites parents, students, teachers and school administrators in an effort to make real and lasting changes in their campus communities that will protect children and the environment for years to come.

Educational Resources:



The number of internet resources for teachers and students on the subject of recycling is staggering. This is a good indication that many organizations believe teaching young people the value of recycling is extremely important. Recycling can also be associated with many other environmental lessons and initiatives. This section provides brief descriptions and links to websites that we have found to be informative, interesting and appropriate for elementary school students. Many sites offer great ideas for teaching kids about recycling and the environment. Some of the best activities and lessons are described below. Worksheets are also available with this

guide or in printable formats on the County website. Select School Recycling from the list at www.co.pierce.wi.us/solid_waste/sw_main.htm.

Internet Resources:

When searching the Internet for the best resources that help teachers with this subject, the information is truly overwhelming. The following links will help guide you to some of the most useful websites for lesson plans and general information about recycling. We will continue to update this section as we learn of new or better educational sites and resources. Please watch for updates and contact the County Recycling Program with suggestions or advice on resources you feel others might find useful.

www.dnr.state.wi.us/org/caer/ce/eek/index.htm

EEK stands for Environmental Education for Kids. This site is part of the Wisconsin Department of Natural Resources and provides links to teacher pages, recycling and environmental lessons and introduces the Green and Healthy Schools program.

www.kid-at-art.com/index.html#departments

This site is sponsored by the Imagination Factory of Columbus, Indiana which promotes reuse and recycling of commonly wasted items. The site offers many ideas for art projects, lessons, activities and information about waste and recycling.

www.paperrecycles.org/news/print_materials/school_guide.pdf

This link is to a guide produced by the American Forest and Paper Association which details how to create a school recycling program. Their website www.afandpa.org offers information on the paper industry and the environment.

www.grrn.org

Grassroots Recycling Network is an environmental advocacy site promoting the concept of zero waste and offering information on campaigns, news on related issues and tools for teaching and learning about recycling. www.kidsrecycle.org is just one of the many resources you'll find on this site.

www.wastefreelunches.org/success.html

When your school's recycling campaign is well underway and new initiatives are being sought, this is the site to visit. It offers a series of success stories from schools striving to reduce waste by promoting waste free lunches. It may sound impractical but it's easier than you might think.

www.earth911.org

A great source for a variety of information on the environment. Their mission is to make every day "Earth Day" and to empower the public with community-specific resources to improve their quality of life. Zip code search provides links to local information and there's loads of links to sites for teachers and students.

www.stopwaste.org

Stop Waste is an organization in California's Alameda County. Reducing waste from all

sources is their main goal but a large focus is on schools since their 350 schools generate 4% of the total waste or 60,000 tons per year. There's some good advice and information but mostly we're including this as a model and inspiration for school recycling in our county.



www.reduce.org

The Minnesota Pollution Control Agency offers information on many recycling and waste reduction topics. A handy index is available at the top of the screen and Educational Toolbox (also at top) offers printable pdf materials.



www.thegreenguide.com/docprint.mhtml?i=115&s=toptenschools

If it's inspiration you seek or perhaps justification for your schools recycling efforts, the top ten list of "Green" schools is certain to do both. This link is a page from "The Green Guide" which describes the criteria and then lists the 2006 winners with an explanation of their programs.

Activities and Lessons:

Mock Recycling

Using moldable material (like Playdough), have each person shape a milk jug, bottle, etc. When finished, ask if the Playdough should be thrown away or if we should smush it down and use it to make a new milk jug, bottle, etc. Do this activity several times, trying to replicate as many different recyclables as possible. This is a great way to emphasize that aluminum, steel, tin and many plastics can be recycled over and over again.

Earth 911 Kids Environmental Quiz -

www.earth911.org/master.asp?s=kids&a=kids/quiz/quiz.asp

Have your class take the environmental quiz. This can be done on line or print the quiz (on the back of previously used paper) to be handed out in class. Note: this quiz is designed for online use so answer indicators will need to be removed prior to making your copies. Print the answer page for review in class.

Earth Day Art

Instruct the class to draw or paint a picture that promotes Earth Day. Drawings can be displayed in public places to promote Earth Day on April 22nd.

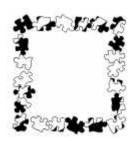


Puzzle Piece Picture Frame

Use up those puzzle pieces and create a unique picture frame. This and other art projects can be found at www.kinderart.com under Teach and Learn – Recycling Projects.

Materials:

- picture of child
- poster paper
- puzzle pieces
- glue
- magnetic strips



Directions:

- 1. Gather pictures of each student (school pictures are a perfect size.)
- 2. Cut pieces of poster paper about an inch bigger (on all four sides) than the picture.
- 3. Have students glue their picture in the center of the poster paper.
- 4. Give each student a handful of puzzle pieces. One 500 -1000 piece puzzle is usually enough.
- 5. Have them glue their puzzle pieces around their pictures, overlapping as they go until the poster paper is covered.
- 6. Glue a magnetic strip on back and you are done. Easy and very cute!

Recycling – What's In It For Us?:

If every person were to learn how the simple act of recycling benefits their environment, it stands to reason that more people would recycle. The reality is, too few are hearing the messages. Adults are overwhelmed with information and most of us don't have the time to sort it all out and decide what's most important. We tend to focus on the information



that seems most critical to our immediate needs and we give more attention to the messages we want to hear. This is why educating younger minds about recycling is crucial in the effort to change the way people think about their place in the environment and what they can do to improve it.

Fun Facts and Truths about Recycling:



Material recovery facilities sort and bail tons of paper and cardboard each day.

Every day American businesses and schools generate enough paper to circle the earth 20 times!

Every Sunday, Americans waste 90 percent of recyclable newspapers. This wastes 500,000 trees!

Old scrap paper of all kinds can be used to make new paper towels and tissues, egg cartons, fruit trays and flower pots.

One recycled glass bottle saves the energy needed to light a 100-watt bulb for 4 hours.

It takes 2 plastic soft drink bottles to make enough polyester fiber for a baseball cap.

Recycling one aluminum can saves the amount of energy to light one 100-watt bulb for 20 hours or run a TV for 3 hours.



Plastic bottles are used to produce fine fleece fabric.



Consider the fact above this image and imagine the energy 7 tons of recycled aluminum will save.



www.resourcefulschools.org

For more facts like these and other resources for schools, visit the St. Louis County (St. Louis, MO) recycling website. Their site offers many resources for teachers and students including a series of videos on setting up a school recycling program. Search on the pull down menu for more FACTS.

Recycling Bins and Suppliers

Selecting the Right Recycling Bins:

Recycling bins are much more than receptacles for recyclable materials. Effective bin design and labeling must define the bins purpose and encourage correct use. Design, cost, durability, size and maintenance were considered in making the best recommendations for school recycling programs. The information provided in this section is for comparison purposes only, and the endorsement of products or companies is not the intent. The same or similar products may be offered by other vendors at a different price.



Bins for Classrooms:

Most schools have implemented paper recycling in classrooms using a variety of bins. In this controlled environment, most any receptacle (whether purchased or not) can work if its purpose is clear and the placement convenient. Place recycling bins next to trash bins and clearly label them. Bins for mixed containers are needed, even if beverages are not allowed in classrooms, since empty containers may be discarded when students come to class.



Rubbermaid Plastics Inc.

Rubbermaid offers many styles and sizes of bins for recycling. Prices can vary widely depending on the distributor, size, and quantity ordered. Talk to your school administrator or head custodian about vendors in your

Price Range: \$3.00 - \$6.00



Midpoint International Inc. – Large Side Saddle

This system will work well in most classrooms. Use the large bin for paper and one small bin for containers. The small hanging bins can attach to most standard trash bins both square and round. Liners are available when using the side saddle for trash.

www.midpoint-int.com phone: (888) 646-4246

Size: 8" x 6" x 9" Capacity: 1.15 gal. Cost Range: \$3.05 - \$3.25

Bins for Halls and Entries

There are many bin designs for public spaces. The majority are designed for placement in government buildings, corporate offices, convention centers and other high exposure places. So esthetics, function, and durability are more important than keeping the price low. As the need for convenient public recycling grows, more bins like these will likely be produced.



Midpoint International Inc. - Recycled Recycler

The Recycled Recycler Indoor Square Series is made from 100% recycled plastic. It is available in 4 different sizes with a 3-inch height difference to allow the units to be opened without interference from adjoining units. The design allows for different configurations and sign insert windows are optional.

www.midpoint-int.com phone: (888) 646-4246

Size: 16" x 16" x 31" to 40" Capacity: 25 - 31 gal. Cost Range: \$ 260.00 - \$275.00



Windsor Barrel Works - Canables Series

These bins are made of galvanized steel which offers strength and fire resistance. They can be ordered with or without graphics. Graphics can be customized for student poster contests and community artwork. Contact vendor for price quotes on graphics.

www.windsorbarrel.com Phone: (800) 527-7848



Midpoint International Inc. - Bullseye Multi-Pack

This series of bins helps specify recycling through color, labels and openings. They can be purchased pre-assembled in groups or separately with or without mounting hardware.

www.midpoint-int.com Phone: (888) 646-4246

Size: 20.5" x 11"x 34" Capacity: 19 gal. ea. Cost Range: \$55.00 - \$60.00 or 3 for \$220.00



Busch Systems – Upright Series

This style has several options for size, lid openings, and clear or opaque lids. The 7 gallon is suitable for classroom recycling. The 14 and 26 gallon bins are suitable as centralized containers. They are made with a minimum of 50% recycled material.

www.buschsystems.com Phone: (800) 565-9931

Size: 17.25" sq. x 22.5" Capacity: 26 gallon Cost Range: \$40.00 to \$50.00



Chevy Lane Design Consulting – School Recycling Bin

This system is wall mounted and specifically designed for public buildings. It is constructed of 1/8" aluminum and sized to hold a standard curbside recycling bin (not included). Multiple units can be assembled side by side with trim that covers seams. Colors, logos, signage and decals can be custom ordered.

www.chevylane.com Phone: (905) 295-7224

Size: 24" x 18" x 18" Capacity: 24 gallon Cost Range: \$120.00 to \$150.00



Busch Systems – 519 A/B Centralized Recycling

The 519 is designed for the separation of cans, bottles, paper, etc. and has a minimum of 50% recycled content. They can be wall mounted to save space and lids have round holes or slots with appropriate recycling decals.

www.buschsystems.com Phone: (800) 565-9931

Size: 20.5" x 11" x 35" H Capacity: 19 gallon Cost Range: \$70.00 to \$90.00

Bins for Lunchrooms

Lunchrooms can generate a variety of recyclable containers. Students and faculty often have access to vending machines, and they also bring some containers into the school. The type of recycling bins used in many school lunchrooms match the waste bins but have a lid with a 5 inch hole. This appears to work sufficiently but, like any recycling bin, proper placement and clear labeling will increase recycling and reduce contamination.



Busch Systems – Recycling Waste Pail

This style is similar to the standard waste containers used in schools but the color and logo makes it stand out from the rest.. Busch Systems supplies it in various sizes and colors and all bins are made with a minimum of 50% recycled content. Different lids are available for more specialized collection.

www.buschsystems.com Phone: (800) 565-9931

Size: Varies Capacity: 20 – 32 Gal. Cost Range: \$45.00 - \$70.00

Recycling Cart

It doesn't have to be expensive to look great and get the job done. This is the type of recycling bin used at many businesses and apartment buildings. With the creative design work, it's a great answer to your lunchroom recycling needs. There are many suppliers of wheeled carts like this. Your hauler may be a good resource or our office can provide you with further assistance in locating suppliers.





Bins for Outdoor and Sports Facilities:

Recycling bins need to be present anyplace groups of people gather. This is especially important where bottled beverages are sold at or brought to an event. Since events like football games are attended by people from outside of the school, it is very important that recycling bins are easy to identify and convenient. They must also be weather resistant, durable, easily maintained and affordable. The following examples meet these standards and represent some of the best solutions to outdoor school recycling.



Eco-Pop Pyramid-Top Recycling Container

This container is specifically designed for outdoor collection of cans and bottles. The stainless steel lid has two 4.5-inch openings on opposite sides. Labeling is laser cut and stands out well on each side of the lid. It is made from at least 77% recycled and reused material, providing a durable, secure, fire safe, and rust resistant container. The lid can be purchased separately or with the 55 gallon reconditioned, galvanized drum. An optional stainless steel lock secures the front-hinged lid.

www.ecopopdesigns.com Phone: (650) 728-9220

Size: 48" x 18"Capacity: 55 gallon Cost: \$250 Lid and Hardware or \$375.00 Complete



Windsor Barrel Works – 55 Gallon Barrel Lid

This lid offers a less costly solution for outdoor recycling barrels. It will fit plastic or metal 55 gallon barrels which are readily available at little or no cost.

www.windsorbarrel.com Phone: (800) 527-7848

Size: 24" x 6" Capacity: 55 gallon Price Range: \$ 90.00 to \$100.00



Rubberline Inc. – Recycling Lid for 55 Gallon Barrel

Made of 100% recycled rubber and plastic, this lid provides a functional solution to outdoor recycling. The hole flap is optional and not recommended as it forms an obstacle to depositing bottles and cans. The appearance may be less inspiring as shown but, with the addition of labels and bright paint, this is a good, low cost option. Lids are secured to barrels with bolts.

www.rubberlineinc.com Phone: (940) 759-2986

Size: 23" diameter Cost: \$19.50 Order Code: [Z] RLI-23-R