



School
Recycling
CLUB

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PET (#1) PLASTIC RECYCLING IN SCHOOLS



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Many school vending machines are switching from using aluminum cans to PET (#1) plastic bottles. Unfortunately, because most schools do not have a system in place to collect and recycle plastic bottles, this switch can cause a lot of "non-recycling." The School Recycling Club (THE CLUB) has developed this "how to" guide to assist schools in the important step of starting a plastic bottle recycling program.

WHY RECYCLE PET PLASTIC AT SCHOOL?

Plastic is produced from a valuable, nonrenewable resource -- oil; it can be an efficient product, which often conserves other resources when produced. For example, plastic's unique characteristics -- light weight and durable -- enable producers to minimize the amount of material used, energy consumed, and waste generated in making products ranging from plastic cups to automobiles. It is for these reasons that there has been a substantial increase of plastic products over the last few years, and in particular, beverage bottles.



Below are a few of the reasons schools should consider implementing a plastic bottle recycling program.

- ⊕ Recycling one ton of PET plastic containers (29,970, twenty ounce bottles) conserves 7.4 cubic yards of landfill space.
- ⊕ After netting out energy consumption for collection, processing, land-filling of residue and transportation to market, recycling a pound of PET saves approximately 37,890 BTU's!
- ⊕ Half of all polyester carpet manufactured in the United States is made from recycled plastic bottles.

WHAT HAPPENS TO RECYCLED PET PLASTIC?

PET plastic can be recycled into many items. Your recycled bottles could end up where you least expect them, such as:

- ⊕ New plastic beverage containers,
- ⊕ Egg cartons,
- ⊕ Sweaters,
- ⊕ Luggage,
- ⊕ Long underwear,
- ⊕ Car bumpers,
- ⊕ Carpets, and
- ⊕ Luggage racks -- just to name a few.

FUN FACTS ABOUT RECYCLED PET PLASTIC

- ⊕ It takes fourteen, 20 ounce PET bottles to make one extra large T-shirt or one square foot of carpet or enough fiber fill for a ski jacket.
- ⊕ It takes sixty-three, 20 ounce PET bottles make a sweater.
- ⊕ It takes eighty-five, 20 ounce PET bottles to make enough fiberfill for a sleeping bag.
- ⊕ The PET bottle was patented in 1973 by chemist Nathaniel Wyeth (brother of distinguished American painter Andrew Wyeth).

SIX STEPS TO PET RECYCLING AT SCHOOL

Step 1: Conduct PET Plastic Evaluation

- ⊕ Determine where plastic bottle vending machines are located in the school.
- ⊕ Record where and when plastic bottles are purchased, consumed, and thrown away (during lunch in the cafeteria, after school activities in the gym, etc.).
- ⊕ Contact the school's vending machine company and inquire as to how many cases of plastic bottles are delivered to the school.
- ⊕ Estimate how many recyclable bottles need to be collected on a daily or weekly basis for recycling.

Step 2: Determine Where Plastic Recyclables Will Be Delivered

Contact the local transfer station/ recycling facility, or Town/City Hall to find out how the municipality collects PET plastic. Keep in mind several essential questions when contacting the facility:

1. What are the hours of operation and days of collection for plastic recycling?
2. Should the school make special arrangements to be a part of curbside collection of recyclables (if applicable) or use of the drop-off facility?
3. What condition does the plastic need to be in (i.e. caps off, labels removed, etc.) to be recycled?
4. Does the plastic need to be separated by color?

If your local community does not recycle PET plastic, contact THE CLUB at 603-736-4401 (e-mail theclub@nrra.net) for help in finding an alternative.

Step 3: Establish Efficient Collection Route

Many schools have recycling bins located throughout the building: in classrooms, hallways, the cafeteria, etc. However, when recycling PET bottles, it is

important to always place bins near vending machines and in high traffic areas where the bins are visible.

Collecting PET bottles may include emptying bin liners and sorting trash from the bin. Because bottles often still contain liquids, ask the custodial staff if it would be possible to have access to a sink to empty the bottles. When the bottles have been collected, they usually end up in a central location for storage or delivery to the local recycling facility.

Step 4: Obtain Collection Equipment

Now that you know where the bins need to be placed, it is time to acquire them. Due to the nature of school activities and the higher volume of bottles in areas such as the gym or cafeteria, classrooms may require smaller bins. Schools have used a number of different recycling containers for collecting plastic bottles, including trash cans, large cardboard boxes, bags suspended on a rack, and "Clear Streams", a container designed specifically for recycling soda and juice bottles and cans. Contact THE CLUB for a copy of the *School Recycling Collection Containers* bulletin.

CLUB EXCLUSIVE

The "Clear Streams" Recycling Bins are a great collection method for recyclable containers. Its strong wire frame, see through bag (providing content visibility), bold graphics, and raised 4-hole lid dramatically increase recycling participation and reduce the chance of contamination, and is available to New Hampshire members of THE CLUB for only \$11! The bin can be used to collect any type of container, such as aluminum cans or plastic bottles.

Step 5: Get the Word Out!

In order for a recycling program to be successful, students and staff must understand how to participate. All of the following activities can create enthusiasm for PET bottle recycling at your school:

- ⊕ Kick off the program in conjunction with a national environmental event, such as Earth Day (4/22), America Recycles Day (11/15), etc.

- ⊕ Make presentations, hold assemblies, and develop posters or brochures.
- ⊕ Send a Press Release to local newspapers announcing the program.
- ⊕ Set up a display which shows a plastic bottle before it is recycled, and then show all the great items that are made out of the bottle once it is recycled.
- ⊕ Contact the CLUB to find out how you can get a free PETE's Pack, complete with various samples and a curriculum guide.

Step 6: Track and Monitor the Program

One of the keys to success with any recycling program is reminding people about the program and keeping people interested in the program. Respond quickly to any problems and continue to work hard to ensure the effectiveness of your recycling program. Remember--students, staff, and people like you make a difference in the world of recycling!!

TROUBLESHOOTING

Liquid

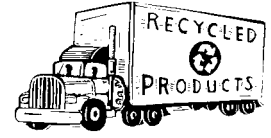
Often, the most common challenge with plastic bottle recycling is the liquid left in the bottles when they students place them in recycling receptacles. One solution schools have found to be very successful is to place a bucket with a funnel next to the recycling bin so students can empty left-over liquid.



Another option schools have tried is to use a mesh bag hung on a rack for collection. By placing a plastic tray underneath the mesh bag to catch draining fluid, bottles are empty when collected.

Delivery

A common problem for schools who do not reside in municipalities with curbside recycling pick up is getting the recyclable material collected to the recycling facility. If you cannot arrange pick up with your town or transfer station, solicit outside help. Contact the PTA, or place an ad in your local newspaper expressing your need for volunteers to move the materials from the school to the local recycling facility.



Storage

Where will you put the plastic bottles once they leave collection bins and before they go to the recycling facility? A shed on school grounds is a good place to start. If this is not an option for the school, a recycling trailer is another alternative. Not only can the trailer serve as a storage facility for the recyclables, but it is also ready to transport the materials to the recycling facility. THE CLUB has worked with many schools who use recycling trailers and has great photos and information on school recycling trailers. Contact the local business community or PTA to help build, buy, or donate a storage shed or recycling trailer.

This bulletin was developed with assistance from the National Association of PET Container Resources. THE CLUB would like to thank them for their support!

THE CLUB is a project of the Northeast Resource Recovery Association (NRRRA), a proactive, non-profit working to make recycling programs strong, efficient and financially successful.