# SCHOOL RECYCLING PROGRAM GUIDE



# A COMPREHENSIVE SOLID WASTE MANAGEMENT SYSTEM

ONEIDA AND HERKIMER COUNTIES GENERATE OVER 1000 TONS OF SOLID WASTE PER DAY.

Since 1991 We Have Recycled Over 700,000 Tons

SINCE 1991 OHSWA HAS RECYCLED OVER

299,311 TONS OR 598 MILLION POUNDS OF



# **NEWSPAPERS**

- → The pile of newspapers (4 foot pile weighs 100 lbs.) would be over 4,535 miles long and stretch from New York, NY to San Francisco, CA and back to Des Moines, IA.
- → 1 ton of newspaper saves 17 trees; we have saved over 5,986,220 trees.



SINCE 1991 OHSWA HAS RECYCLED OVER

150,300 TONS OR 300 MILLION POUNDS OF

# CORRUGATED CARDBOARD

→ This would fill 71,571 ten-wheel dump trucks with 1 million cubic yards; bumper-to-bumper, and would stretch nearly 407 miles.



# introduction

Congratulations and thank you for making the commitment to support our community's recycling education initiative by becoming a leader of your school's Green Team. The Oneida-Herkimer Solid Waste Authority (OHSWA) is advancing this initiative, but its success depends on you.

Recycling is everyone's responsibility and it's important for educators to deliver that powerful message early and often in their students' lives. As a Green Team leader, you are playing a critical role in that educational process.

Largely through you and your team's efforts, students will be introduced to the recycling concept and taught to adopt recycling habits that not only will last a lifetime but will also be passed on to succeeding generations.

In order for recycling to work effectively, people must first be made aware of the potential problems and serious consequences to the environment when they fail to recycle. They have to learn how to look at the world somewhat differently or change their point of view from one of complacency to one of interest and involvement. That's where your participation as a leader and educator is critical. This manual will provide you with most of the information, tools, resources and guidelines you'll need to establish a comprehensive recycling program in your school and to educate your students about the value and long-term benefits of recycling, conservation and environmental stewardship. The Oneida-Herkimer School Recycling Coordinator can also assist you in getting your program up and running and position it for success.

Part of OHSWA's organizational mission is to educate the public and create increased awareness of the importance of recycling. With your dedication and assistance, we can fulfill that mission and ultimately accomplish our broader long-term goal of providing every citizen with the knowledge and the means to preserve and protect our precious environment.





# program start up

# WHY GREEN TEAMS ARE IMPORTANT

The primary motivation for schools to participate in the Green Team initiative is to broaden students' horizons beyond traditional curriculum and teach them about their individual responsibility to respect, preserve and protect the increasingly fragile environment that surrounds them.

Recycling helps control rising waste disposal costs, conserves resources and energy, and facilitates compliance with local and state recycling mandates.



Schools, as trusted learning institutions, can play a significant part in helping students better understand the concept of teamwork as it relates to conservation practices, how to take responsibility and initiative, how to set and attain goals, and the power of individuals acting collectively to make an impact and affect change. These are valuable life lessons that will serve both the students and the environment—now and in the future.



greenteam.ohswa.org



# SCHOOLS PLAY A SIGNIFICANT PART IN HELPING STUDENTS BETTER UNDERSTAND THE CONCEPT OF TEAMWORK AS IT RELATES TO CONSERVATION PRACTICES.



# your school program



# 1. ORGANIZE YOUR TEAM

The first step in setting up your school's recycling program is organizing your green team.

### Leader

The green team should include a leader/ coordinator (that's you) who is responsible for planning, directing, implementing and monitoring your program, as well as team members consisting of other faculty, teacher's aides, PTO members, students, and custodial and cafeteria staff.

ON AVERAGE, GREEN SCHOOLS USE 33% LESS **ENERGY. SAVE 32% MORE** WATER AND REDUCE SOLID WASTE BY 74%!

### Custodians

Custodians are key players in the school recycling effort. Their input is critical and should be included early on in the planning process, since they are instrumental in overseeing how waste and recyclables move through the building and into the proper receptacles. Excluding them can create difficulties for the program later on.

### **Teachers**

Teachers should be enlisted to support the program in the classroom, teacher's lounge and cafeteria. They are needed to urge student participation and to encourage school projects and field trips that involve recycling.

The responsibilities of team members, at least initially, is to gather and organize information that will be used in planning, publicizing, executing and monitoring the program, and then once the program is well-established, to serve as the team leader's trusted advisors. Additional responsibilities should be identified and assigned based on your school's needs.

# 2. CONDUCT A WASTE AUDIT

Once the team has been assembled, you can begin the critical task of conducting a waste audit so you can identify the origin of waste, the types, (paper, plastics, metal and glass) and the volume.

In order to conduct your waste audit, you and your team should be looking at classrooms, the cafeteria, library, faculty lounge and administrative offices. Then determine what items can be recycled, reused, reduced and eliminated.

After you conduct the waste audit, you can then begin the process of developing and carrying out strategies with your team members that address recycling and reuse. Wherever possible, you and your team should make recommendations for substituting recyclable materials in place of non-recyclables.

ONE YEAR OF RECYCLING AT STANFORD UNIVERSITY SAVED THE EOUIVALENT OF 33,913 TREES.

# 3. IDENTIFY WHAT TO RECYCLE

Based on your audit, identify those items your school can and should recycle. It will likely be white and colored paper, corrugated cardboard, milk cartons and juice boxes, plastic bottles, and aluminum and steel cans.

Tip: It's best to start out with a limited number of materials and then add others as the collection system and the program becomes more refined.

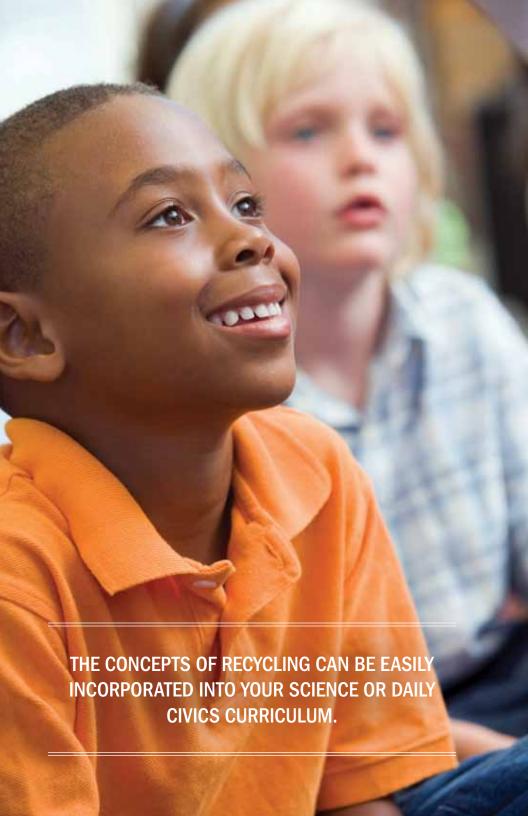
# 4. ESTABLISH YOUR COLLECTION SYSTEM

Now that you know what you'll be recycling, you'll need to establish a collection system. We recommend placing collection containers directly at the place of origin.

- · Containers should be placed in classrooms and offices for white and colored paper.
- · Containers in teachers' and students' lounges, kitchens and near vending machines for aluminum and steel cans, and plastic containers.

It's important that the containers are properly designed and functional so that they are user-friendly. They should also be highly visible, properly labeled and include appropriate signage not only to direct users to them, but also to avoid contamination and mixing recyclable and non-recyclable waste.

After collection, the recycled items should be stored in a separate, designated area for holding all materials prior to pick-up by your school's waste and recycling hauler.



# 5. SET GOALS AND REWARDS

As with any school activity that involves student participation, it's always a good idea to set goals and possibly offer simple, low-cost rewards and recognition to those who achieve them. These can be individual, class, grade or school goals, but most importantly realistic and attainable.

In addition to individual student rewards for going green and recycling, the school could award a prize or certificate for the "Recycler of the Month" or the "Greenest Student"

# 6. PUBLICIZE, EDUCATE AND INFORM

Now, with your green team assembled and all of the program pieces in place, it's time to let everyone know about it—everyone, from the principal to the janitor. The program needs complete buy-in from district administration, faculty, staff, students, and parents.

RECYCLING ONE ALUMINUM CAN SAVES **FNOUGH FNFRGY TO** RUN A TELEVISION FOR THREE HOURS

In order to gain the support you'll need to make to make this program work effectively, it's important to thoroughly explain how it will function, when and where the collections will occur, and what kind of progress is being made.

# This information can be communicated through:

- Creative displays, posters and banners with simple, clear messaging
- Public address announcements
- Stories in the school newspaper
- Assemblies to launch the program
- Classroom discussion

The concepts of recycling can be easily incorporated into your science or civics curriculum and to make it a little more fun, can be used to form the basis of spelling bees, math problems, scientific experiments, vocabulary exercises and word puzzles. Members of the green team can visit classrooms and describe to fellow students the meaning and importance of the program. Increased program visibility and participation can be obtained by issuing a press release to the media or soliciting corporate sponsors to assist with green initiatives.

# recycling information



# BACKGROUND EDUCATIONAL INFORMATION & SUGGESTED LESSONS

The following topics and educational information can be used as background information and also as the basis for lessons and classroom discussion-so that everyone involved with the program gains a clearer understanding of the recvcling process.

One lesson might be to follow the trail of a can or bottle from the vending machine through the recycling process to its re-fabrication as a material made of recyclables and back onto store shelves to complete the cycle.

THE ENERGY WE SAVE BY RECYCLING ONE GLASS BOTTLE IS ENOUGH TO POWER A LIGHT BULB FOR SEVERAL HOURS.

Of course, a class field trip to the Oneida-Herkimer Recycling Center would be the most

effective way of demonstrating the process to students so they can actually watch recycling in action. You are encouraged to include that activity as part of your program or recommend it to fellow faculty members as part of their curriculum.

Part of OHSWA's commitment to public education and community service involves providing speakers and facility tours to various groups throughout the region. If your school, club or organization wishes to schedule a tour or arrange for a speaker to talk about the method of recycling, composting, solid waste management or the landfill, please contact us at (315) 733-1224 or jamiet@ohswa.org.

SINCE 1991 OHSWA HAS RECYCLED OVER 43,354 TONS OR 86 MILLION POUNDS OF GLASS CONTAINERS → Equivalent to 134 Statues of Liberty (322 tons)

A CLASS FIELD TRIP TO THE ONEIDA-HERKIMER RECYCLING CENTER IS THE MOST EFFECTIVE WAY IN DEMONSTRATING, TO STUDENTS, THE RECYCLING PROCESS IN ACTION.



# HOW RECYCLABLES ARE PROCESSED

After recyclable materials are collected at your school and picked up by your waste hauler, they are brought to the recycling center. As trucks loaded with recyclables arrive, they are weighed at a scale house in front of the facility to determine the weight and volume of materials. The trucks then enter the recycling center and drive onto what's known as the tipping floor, where they unload their cargo.

THE UNITED STATES IS THE NUMBER 1 GARBAGE PRODUCING COUNTRY IN THE WORLD - OVER 1.609 LBS OF GARBAGE PER PERSON. PFR YFAR!

Once on the tipping floor, the recyclables are loaded into a hopper, which places them on a conveyor belt that will carry them to the secondfloor, automated sorting area. Before material enters the automated sorting area, gross contaminants are removed and the remaining material is conveyed for separation.

When recyclables reach the second floor, fast, rotating devices separate newspaper and cardboard from cans and glass that tumble to another level. Magnets grab metal cans and optical scanners recognize plastic from other items and trigger blasts of air to blow plastic into another bin.

Plastics, metals and paper are sent separately to a baler, where they are compacted and eventually sold to market. Once glass containers are sorted, they travel by conveyor outside the building where they are mechanically crushed and dropped off into roll-off containers, ready for transport to market.

Our recyclables are shipped to various markets throughout the northeast, Canada, and Asia to be turned into new products made of recyclable materials.



# ACCEPTABLE AND UNACCEPTABLE MATERIALS FOR RECYCLING

In order to be effective recyclers both at home and at school, students should know the materials that are acceptable for recycling. Below are two school recycling posters that can be displayed in the classroom. On the following page are the recycling guidelines for RecycleOne. For a comprehensive list of acceptable and unacceptable recycling materials visit ohswa.org.

# Other Recycling Ideas:

- Create your own recycling posters for a classroom discussion
- The basis of a true or false exam that tests students' recycling knowledge
- · Create a display of various products and have students identify which are acceptable and unacceptable, with rewards or prizes going to those who get the highest scores.

### OHSWA SCHOOL RECYCLING POSTERS





**Elementary School** 

Middle & High School

To request posters for your school, please contact OHSWA at (315) 733-1224 or jamiet@ohswa.org.

# Here's Hov

# ★ ALL RECYCLABLE ITEMS MIX TOGET

- 1. All recyclable items—paper, plastic, metal, and glass—
- 2. Recyclables must be placed in your designated\* recycles your choice, under 35 gallons and not more than 50 p



- 3. Lids should be left on recyclable containers. Containe
- 4. Do not place recyclables in plastic bags for collection



# **PAPER**

**School Paper** (White & Colored)

Newspaper, Junk Mail, Cardboard, Catalogs & Magazines

# **Beverage Cartons**

(Milk, Juice and Juice Boxes)

**DO NOT INCLUDE:** Hard Cover Books, Napkins, Paper Plates, Tissue Paper, Soda & Beer Cartons, or Construction Paper





(Now With and Without Numbers)

Milk & Water Jugs

Cottage Cheese, Yogurt, & Pudding Cup Containers

**DO NOT INCLUDE:** Styrofoam Containers, Plastic Bags, Toys, Motor Oil Bottles, Prescription Bottles or Clothes Hangers

# w It Works

# THER IN ONE BIN FOR COLLECTION. $\star$

-need to be mixed together loosely in one container.

ling bin or a durable plastic or metal lidded container of bounds.

rs should be empty and rinsed before recycling.

. No string, no trash or green waste allowed.



Food & Beverage Cans
Deposit Cans
Aluminum Foil
Aluminum Plates
& Trays
Metal Lids

**DO NOT INCLUDE:** Metal-Cardboard Containers (Cocoa & Motor Oil), Clothes Hangers, Silverware or Small Appliances



Green, Amber & Clear Containers
Canning Jars
Deposit Bottles
Food & Beverage
Containers

**DO NOT INCLUDE:** Broken Glass, Drinking Glasses, Ovenware or Ceramics, Dishes, Mirrors, Window Glass or Light Bulbs



# school composting and green waste recycling



# OHSWA CAN HELP YOUR SCHOOL SET UP A FOOD WASTE COMPOSTING PROJECT.

Building a compost heap could make a wonderful science experiment or afterschool extracurricular activity, and the end product could be used around the facility as part of normal landscape maintenance.

Another idea would be to have students plant a community vegetable garden or hold an Arbor Day tree planting ceremony and apply the composting material and mulch as part of it. Plant one tree with the materials and one without and have students measure the progress of each to see which one grows better.

# WHY COMPOST?

Our local solid waste/recycling laws require us to compost green waste, also called yard waste. Although local law does not require home composting, it is encouraged because it is the simplest and most economical way of handling these materials; and along with recycling, it helps reduce the amount of material going into the landfill. Composting can be done easily at home or at school for a fun class project.

Many residents already have backyard compost piles or units where they compost yard waste and some household waste. We also operate a green waste composting facility that produces finished compost for residents' use.

A basic understanding of the composting process can produce a high quality, useable product and all it takes is a few simple materials and a little time. ON AVERAGE, EACH AMERICAN THROWS OUT MORE THAN 1.200 LBS OF ORGANIC GARBAGE **FVFRY YFAR THAT** OTHERWISE COULD BE COMPOSTED

To learn more about how your school or green team can set up a school composting program visit ohswa.org. You can also contact the OHSWA office directly at (315) 733-1224 or via email at jamiet@ohswa.org

# **GREEN WASTE RECYCLING**

Inform those students who are old enough to cut their grass at home that grass recycling—simply leaving grass clippings on the lawn—reduces the amount of yard waste that must be recycled, which saves everyone time, effort and money. If they are not old enough to mow the lawn, ask them to tell their parents about the benefits of grass recycling.

# **Grass Clippings**

The key to successful grass recycling lies in keeping the clippings small. By mowing once a week, grass clippings remain small and disappear in the lawn and decompose easily. Leaving clippings on the lawn returns nutrients and valuable organic matter to the soil.

# **Grass Cutting**

Cut grass when it's dry and approximately three inches in height. Cutting approximately one inch off the top helps develop a larger and deeper root system. Residents may even want to consider a mulching mower.

RECYCLING EMPLOYS OVER 1.1 MILLION AMERICANS AND OVFR \$37 BILLION IN ANNUAL PAYROLL FOR UNITED STATES **FCONOMY** 

# **Fertilizing**

Avoid over-fertilizing and observe recommended rates for slow, controlled-release fertilizer. Grass recycling can reduce the need to fertilize by as much as 25%, saving even more time and money.

## Thatch

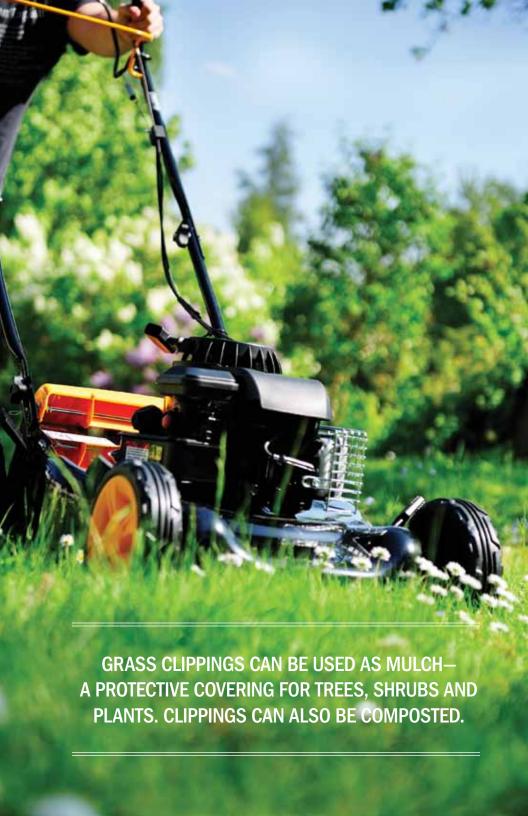
Thatch is the accumulation of slowly decomposing organic matter at the surface of soil. It is caused by overfertilizing, improper watering, or allowing grass to grow too long between mowings. Grass clippings, however, do not cause thatch.

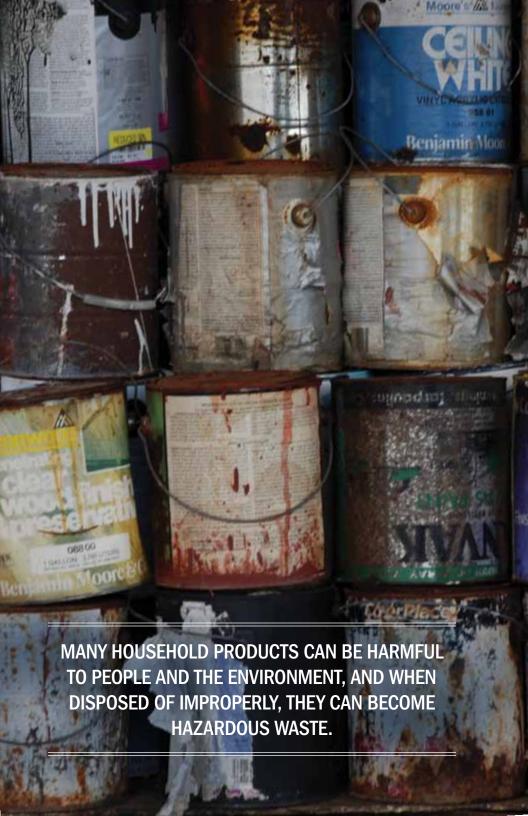
### Watering

Grass recycling increases moisture retention and saves water. The rule is to water infrequently but deeply. Most sprinklers need to run about four hours one day each week to saturate the soil.

## **Mulching and Composting**

Grass clippings can be used as mulch—a protective covering for trees, shrubs and plants. Clippings can also be composted, creating an organic soil conditioner that can be used on lawns, trees and shrubs.





# waste disposal



# **HOUSEHOLD HAZARDOUS WASTE**

Many household products can be potentially harmful to people and the environment. When these products are disposed of improperly, they can become hazardous wastes.

The Oneida-Herkimer Solid Waste Authority has a specially-designed Household Hazardous Waste Collection Facility for receiving, sorting, packaging and storing household hazardous waste material. Disposal is arranged through a licensed household hazardous waste disposal contractor. Small quantity hazardous waste generators, such as schools, can arrange to drop off certain wastes such as fluorescent bulbs, lab chemicals, and electronics waste.

# Minimize the Environmental Impact

By following these few simple guidelines, students and their families can safely reduce the potential impact of household hazardous wastes on the environment:

- · Learn about the products you use and explore non-toxic or less toxic alternatives.
- · If potentially hazardous products must be purchased, buy only what is needed and use them up. Try sharing products to ensure the entire quantity is used. If possible, give leftover paints to a community group.
- Read labels carefully, observe precautions for use and storage, and follow recommendations for disposal.
- Never bury waste, dump it along the side of the road, or pour it into a drain or storm sewer.
- Use only the amounts recommended on the label. Twice as much pesticide won't kill twice as many pests, but it can cause more problems for the environment.
- · Check containers to see if they have deteriorated. If so, safely dispose of them and their contents before they start to leak.

## Hazardous waste tips

- · Carefully store household hazardous wastes prior to disposal.
- Both hazardous and recyclable materials should be brought to the facility in their original containers.
- Drop-off waste in non-returnable containers.
- · If not in their original containers, materials should be labeled clearly.
- · Do not mix leftover paints in one can because the recycling company will sort the paint by color and type. The recycled paint will be used as a sealer for dry wall or concrete blocks.
- · Empty paint cans should go into the garbage and should not be brought to the facility. Before placing in the trash, first remove lids from the empty cans and make sure paint is hardened.
- · Consider purchasing recycled paints available at many local paint and hardware stores.
- · Empty cleaner or pesticide containers should go into the garbage.
- · Never mix two potentially hazardous products like bleach and ammonia together because they can produce toxic fumes, fires or explosions.
- Do not use discarded food containers to store hazardous waste.
- · Medical sharps must be delivered in a puncture-proof covered plastic or metal container and clearly marked "Sharps."

### Residential convenience stations – You are the Ambassadors!

Students and your green team members can serve as ambassadors for environmental stewardship and should be encouraged to bring important recycling and environmental messages home with them. An important message for families that have special or one-time wastes, or that don't have the ability to subscribe to a specific collection system, is that there are two residential convenience stations available designed specifically for those purposes.

- · Utica- adjacent to the recycling center on Leland Avenue
- · Rome- adjacent to the western transfer station on River Road

Open Monday through Saturday. Visit ohswa.org for specific hours of operation.

## SINCE 1991 OHSWA HAS RECYCLED OVER

36, 147 TONS OR 72 MILLION POUNDS OF



→ That would produce approximately 24,098 economy-size cars (1.5 tons/car).



**Economy-Size Cars** 

# STATE-OF-THE-ART FACILITIES TO SERVE OUR REGIONS NEEDS

- Recycling Center
- 2 Household Hazardous Waste Collection Facility
- Municipal Yard Waste Compost Facility

- Regional Landfill
- Three Solid Waste Transfer Stations
- 6 Landfill Gas To Energy Facility















# ONEIDA-HERKIMER SOLID WASTE AUTHORITY