



SETTING UP A CAMPUS WASTE PREVENTION & RECYCLING PROGRAM

GETTING STARTED

[See: **Battle of the Schools** - *How to Get Started* form]

This project has the flexibility to allow it to be a short duration project or a semester long study. It can be completed in a couple of lunch periods, a couple of hours before school, or it can become an in-depth project. This all depends on the schedules of participants and the level of participation deemed reasonable by student participants and advisors. The details should be worked out between the students, participants, advisors, and the representatives of the project. With that in mind the following are the basic requirements necessary to participate in and complete this project.

For further information please contact Steve Howe at Generation Earth.
818-623-4882 (office)
818-516-1603 (cell)
showe@treepeople.org or Chowelqbch@aol.com

SET UP A MEETING WITH PROJECT REPRESENTATIVES

This can include other teachers on staff, Generation Earth support staff, city recycling coordinator, school principal, etc. to establish the project details.

You will want to establish a firm and positive relationship with the campus plant managers and staff. This could be the key to you successfully establishing or expanding a recycling and waste reduction program at your campus. Plant personnel are crucial to the functioning of a campus.

Your City or County Recycling Coordinator may be helpful in providing additional resources or materials to set up your program such as free recycling bins, trash bags, etc. (contact information available through GE). For additional information on resources you can call 1-888-CLEAN-LA.

CREATE A PROJECT OUTLINE

Put together a written plan that includes goals, objectives, logistics, and timeline (sample provided).

RESEARCH INFORMATION

Begin gathering info on your current campus service providers, waste hauler and/or recyclers. A copy of service contract should be available through your principal or district office. Collect information such as pick up schedules, container sizes, quantity and locations of bins, etc.

Research where your *campus' waste* goes after the hauler collects it. Find out if it's sent to a Material Recovery Facility (MRF), a transfer station, a waste energy plant, or to the landfill. Determine if waste is collected only from schools or if it is mixed with waste from other businesses in the area before reaching its next destination.

DETERMINE THE DIFFERENT COMPONENTS OF YOUR CAMPUS SOLID WASTE SYSTEMS.

Perform a campus waste audit. (Generation Earth project representatives are available to assist. Generation Earth *Campus Waste Audit* publication is also a helpful tool.)

1. Are there recycling bins...
 - in the common area?
 - by the campus store?
 - by the waste bins?
2. Identify the type of materials they are for?
3. Check if there are items thrown in the bins that should not be there, such as food or plastic in a bin designated for cardboard?



DETERMINE WHAT COMMODITIES WILL BE RECYCLED.

Start simply with just a few recyclables (paper and aluminum are usually good commodities to start with).

Think about possible contaminants to these different commodities and how to avoid them.

- ✓ Paper
- ✓ Corrugated Cardboard
- ✓ Aluminum Cans
- ✓ Food Service Waste
- ✓ Plastic Plates And Utensils
- ✓ Milk and juice cartons
- ✓ Wet waste i.e. certain food types
(can vermicompost, compost, or send to local farmer).
- ✓ Landscape waste
- ✓ Compostables
(leaves, grass clippings, vegetable scraps, etc).

ASSIGN STUDENT TEAMS TO THE VARIED COMPONENTS OF THE PROCESS

There should be at least five students participating in this project. If fewer than five, adjustments will need to be made to the project to accommodate the schools requirements.

There is no limit to the maximum number that can participate. The larger the number of participants the greater the amount of information that will be gathered and the greater the impact this project will have on your campus.

REPORTING AND TRACKING FORMS

Review and supervise completion and submission of enclosed tracking and data forms

Enclosed forms include:

- ✓ *Data Tracking Sheet*
- ✓ *School Waste Survey Form*
- ✓ *Pledge Sheet*

SUBMIT RESULTS

If you are participating in the *Battle of the Schools* competition you will be focusing on recycling on your campus. You will need to record **your best three weeks** of reduction and submit those totals before April 1st, 2002. For calculation assistance please refer to the Generation Earth *How To Calculate The Weekly Trash Rate* form.

Complete the *Waste Survey Form* provided and submit data before you begin your project. Maintain copies of all submissions for your own records.

Submit all required forms to Steve Howe at **Generation Earth - 12601 Mulholland Drive - Beverly Hills, CA 90210 or fax to 818.753.4645).**

ADDITIONAL PROGRAM AND TEACHER SUPPORT AVAILABLE

Assistance offered by Generation Earth can consist of:

- ✓ Assistance in creating an effective public/campus awareness program. Support in choosing effective awareness tools. How to increase participation on your campus.
- ✓ Market tracking and understanding the waste systems. Waste audit and monitoring assistance.
- ✓ Background information on legislation that has driven waste reduction and recycling.
- ✓ Special speakers are available to address topics of interest to participants.
- ✓ A free bus is provided to your group for a field trip as an incentive. Location must be within Los Angeles County limits.
- ✓ Additional promotional items may be provided if they are available.



MEASURING YOUR RESULTS

Accurate measurements of your schools weekly trash rate will provide Generation Earth the necessary data to determine the winning school in the *Battle of the Schools* competition. The data for calculating the trash rate is gathered through a simple process outlined below and must be submitted every two weeks to assure accuracy.

Meet with the *school/plant facilities manager* to review measuring procedures for full, partially full, and over-flowing dumpsters. Provide copies of the calculation instruction sheet and data tracking sheets for documentation. Keep in regular contact with the plant facilities manager as well as the *project facilitator* throughout the duration of the contest.

Find out the days and times that the dumpsters are emptied from the Campus by your trash hauler (usually three times a week). Create a project calendar and mark days for reference.

Record the number and location of trash dumpsters on campus. Label each individual dumpster for identification.

Most standard dumpsters are approximately 3 cubic yards in volume. Calculate the volume for each dumpster ($l \times w \times h$) and label it with a large size label on the outside. Each labeled dumpster should have its dimensions recorded (length, width, and height) to assist project facilitator.

Request the project facilitator to count and measure dumpsters either the night before or the morning that trash is picked up from the school campus. Document the results for submission. Submit results every two weeks to Generation Earth.

Make copies of the enclosed *Pledge Sheet*. Circulate throughout campus to get students motivated to participate in contest. Everyone at your school will need to do their part to help. *Pledge Sheets* are needed by Generation Earth before project deadline of April 1st, 2002.



HOW TO CALCULATE YOUR WEEKLY TRASH

Calculating the trash rate is an easy process. Follow the example below

Monday	Full	Partially Full	Overflowing
Dumpster A			
Dumpster B		24"	
Dumpster C			18"

Full Dumpsters

- Volume = length x width x height for of that particular dumpster

Example: 3 yard dumpster 72" x 48" x 48" = 1152 inches

Partially Full Dumpsters

- Plant staff recorded the number of inches that the trash is below the dumpster fill line. For example, the "partially full" box for that dumpster might read 24 inches. Subtract this figure from the height of that particular dumpster.

Example: Volume = Length x weight x (height – 24 inches)

Example: 72" x 48" x 24" = 376 inches

Over Flowing Dumpsters

- Plant staff recorded the number of inches that the trash is above the dumpster fill line. For example, the "over flowing" box for that dumpster might read 18 inches. Add this figure to the height of that particular dumpster.

Example: Volume = Length x weight x (height + 18 inches)

Example: 72" x 48" x 66" = 1571 inches

Total Weekly Trash Volume

- Add all of the individual dumpster's trash volumes (Full, Partially Full, Overflowing). This total in cubic feet/inches is the volume of trash produced on campus in one week.

Weekly "Trash Rate"

- Divide the weekly trash volume by the total student population. This figure should = x amount of trash (in cubic feet and inches) per student. Record this figure weekly on the Data Tracking Sheet.



HOW TO CALCULATE YOUR TRASH

Converting Inches to Feet

- Divide the weekly trash rate by 12 to arrive at an answer for cubic feet of trash per student per week

Example:

-seven 3 cubic yard dumpsters emptied 3 X each week
-each dumpster is 72" x 48" x 48" = 1152"
-if 7 dumpsters are collected 3 days a week and are full then:
-7x3=21 dumpsters collected each week
-21 dumpsters @ 1152 inches each= 24,192 inches per week [or 2016 cubic feet per week]
-then if the student and teacher population is 1500:
-1500 divided into 2016 cubic feet equals 1.304 cubic feet of waste produced per person per week at this campus.



Battle of the Schools

PLEDGE SHEET

School Name _____

City _____ Page ____ of ____

By signing this pledge sheet, I promise to participate in the **Battle of the Schools** waste reduction competition by following the recommendations of the student waste reduction team and my teacher facilitator.

Print Name	Signature	Grade
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		



Battle of the Schools

SCHOOL WASTE SURVEY FORM

*Please provide phone numbers below

*School Name _____

Address _____

*Teacher Contact: _____

*Admin. Contact: _____

*Facilities Contact: _____

*Student Lead #1: _____

Student Lead #2: _____

*Student Population: _____

Teacher Population: _____

*Waste Hauler _____

Disposal Collection Costs _____

Does the District or School Pay? _____

Number of Disposal Bins. _____

Collection Days _____

Time of Collection _____

Bin Levels Before Collection _____
(For Each Bin)



(page 2 - Waste Survey Form)

What is done with the Greenwaste? _____

*Recycler _____

of Recycling Bins _____

Collection Days _____

Time of Collection _____

Costs For Recycling Program _____

Is There a Cafeteria on Site? _____

Food Delivered or Prepared on Site? _____

Type of Food Service Trays: Styrofoam _____ Compostable Paper _____

Plastic _____ Metal _____

What is done when construction projects are taking place on campus? _____

Types of Materials on Campus: (Check off)

Aluminum _____

Boxboard _____

Cardboard _____

Color Paper _____

Cartons _____

Computer Paper _____

Drink Pouches _____

Glass _____

Magazines _____

Newspapers _____

Other Plastics _____

Other Metals _____

Plastic Bottles _____

Styrofoam _____

Tin Cans _____

White Paper _____

Wood _____

Please fax completed form before you begin your program. Fax to:(818) 753-4645 Attn: Steve Howe

BATTLE OF THE SCHOOLS

Data tracking sheet

School Name _____

Week of _____, _____

Month

Day/Date

DUMPSTER		MONDAY			TUESDAY			WEDNESDAY			THURSDAY			FRIDAY		
Label	Dimensions (inches)	Full (check)	Partially Full (inches)	Over- Flowing (inches)	Full (check)	Partially Full (inches)	Over- Flowing (inches)	Full (check)	Partially Full (inches)	Over- Flowing (inches)	Full (check)	Partially Full (inches)	Over- Flowing (inches)	Full (check)	Partially Full (inches)	Over- Flowing (inches)
A																
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ALL MEASUREMENTS IN INCHES

(Plant Manager/Facilitator Signature) _____

(Print Name) _____