

Zero Waste Schools Training

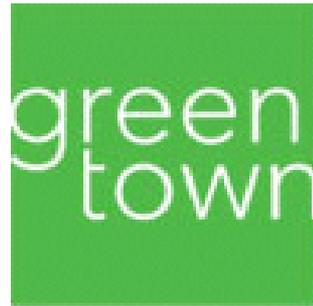
Sustainable Schools Symposium • April 2, 2013



How to reduce waste at your school
and incorporate zero waste education
in the classroom

Shari Brown and
Jennifer Nelson

Seven Generations Ahead



- 501(c)3 nonprofit serving Chicago metro area and Midwest
- Mission to promote ecologically sustainable and healthy communities
- PlantGreen, Green Town, Fresh from the Farm, and Zero Waste Ambassadors
- Zero Waste Ambassadors is a program of Seven Generations Ahead



Objectives: Zero Waste Training

- Understand how to formulate and empower a zero waste team at your school
- Learn how to conduct a zero waste audit and use it to make strategic zero waste decisions
- Explore zero waste education, curriculum, and programming
- Know what your next zero waste steps are back at your school/organization





Agenda

- **Introductions**
- Why Zero Waste?
- Building a ZW Team
- Using Waste Audits to Set Goals
- ZW Ambassadors – Teaching ZW in the classroom





Your Zero Waste Story

part 1

Think about what is going on in the classroom, cafeteria or building at your school...

- a) What is one way you divert waste from the landfill (reduce what is used, improve recycling, reuse resources, compost, etc.) at your school already?

- b) What is one thing you would like to do to divert waste from the landfill at your school?



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Why Zero Waste?

- An average-sized elementary school generates 18,000 lbs of garbage per year. (kidskonserve.com)
- The average student generates approximately 1/2 lb of waste *per school day*. (EPA) – other estimates are higher
- Active area landfill space is at a premium, making hauling necessary.



Zero Waste Goals

- Increase Recycling
- Convert Food Scraps to Compost
- Eliminate Waste at its Source (source reduction)
- Teach About Sustainability, Earth's Natural Cycles, Waste=Resource
- Identify opportunities for cost savings
- Start the journey toward Zero Waste



Schools with ZW Programs

Chicago Public Schools:

- Breakfast waste reduction program (25 schools in 2011-2012)
- ZW plans being developed and implemented at individual schools
- Composting Cohort (ongoing) – Pete Leki

D97 Oak Park:

- 8 elementary schools and 2 middle schools

Highland Park D112:

- ZW survey of all schools (2011-12)
- Lunchroom composting (2012-13)

Naperville:

- 1 elementary school (2008-09)



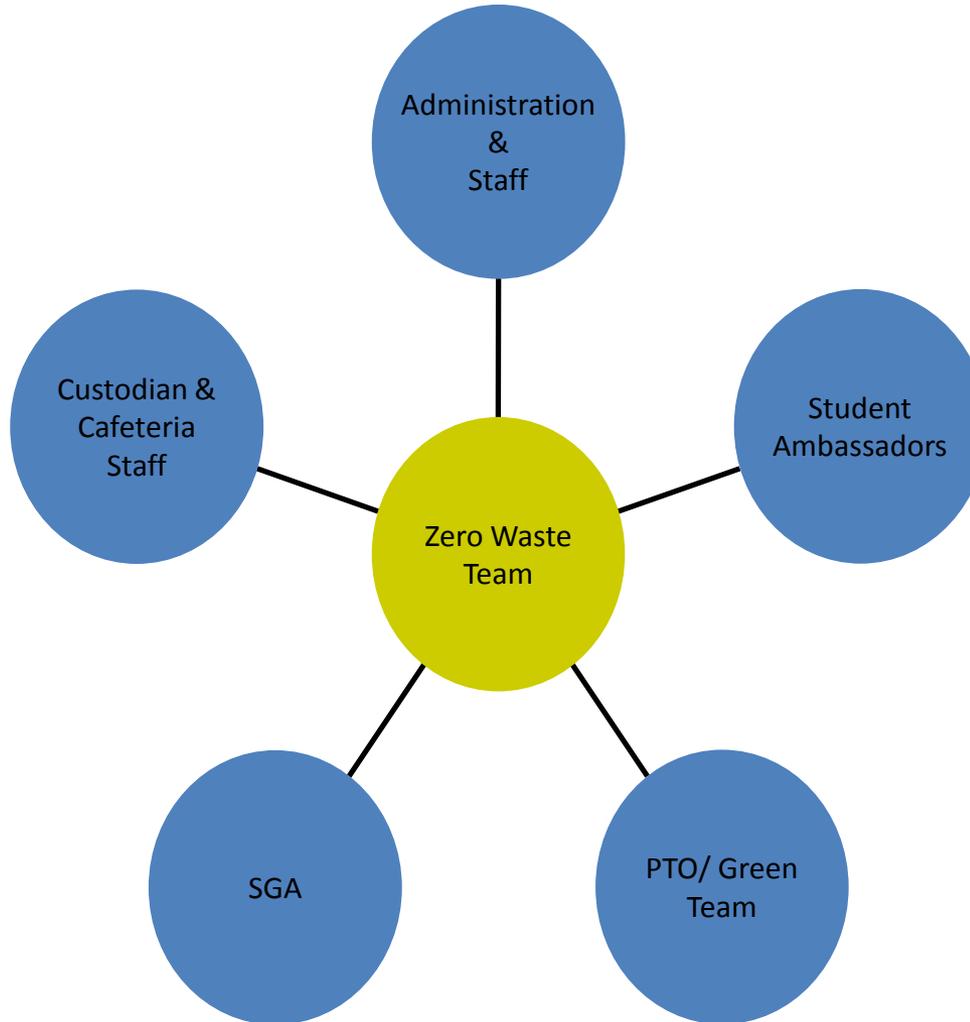


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Build a Zero Waste Team



How do you get a "Yes"?

- Show examples of other schools doing this successfully
- Review systems already in place
- We want to pave the way/not be left behind
- Use data
- Prepare them for green jobs with hands on experience
- Involvement from everyone ensures good program design



enrollment	# milk cartons to be recycled each year	Pounds of liquid to be kept out of the landfill each year*	# paper bags to be recycled each year
250 students	22,950 cartons	5,610 pounds	25,500 bags
500 students	45,900 cartons	11,220 pounds	51,000 bags
750 students	68,850 cartons	16,830 pounds	76,500 bags



Your Zero Waste Story part 2

- c) Who should be involved on your zero waste green team?

- d) What are a couple obstacles you predict may make this challenging?



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Zero Waste Planning & Audit

1. Conduct a waste assessment
2. Measure Results
3. Use results to strategically plan ZW initiatives
4. Establish and communicate goals and strategies



Conduct a Waste Assessment

Empower and prepare your ZW Team:

- Parents, green team members
- School principal
- Teachers
- Custodial & lunch room staff
- SGA
- STUDENTS!



Conduct a Waste Assessment

Waste audit video:



Measure Results

Holmes Waste Assessment

Grand Total:
100.5 lbs of waste a day

FOOD SCRAPS total = 53.25 pounds

RECYCLING total = 32 pounds

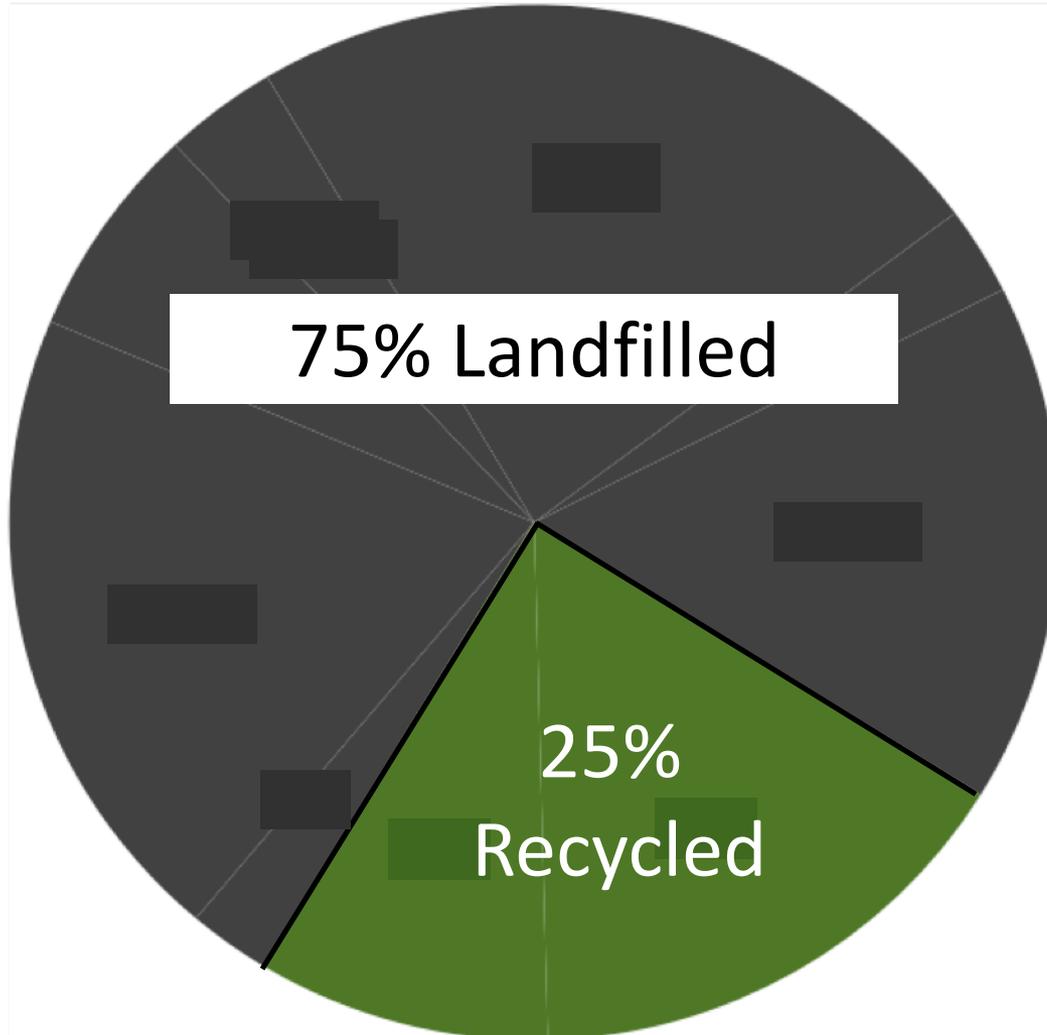
LANDFILL total = 11.5 pounds

- Polystyrene = 9.5 lbs
- Mixed materials: Juice boxes, cookie and candy wrappers, condiment packets, potato chips = 2 lbs

WHOLE UNEATEN FOOD total = 6.5 pounds

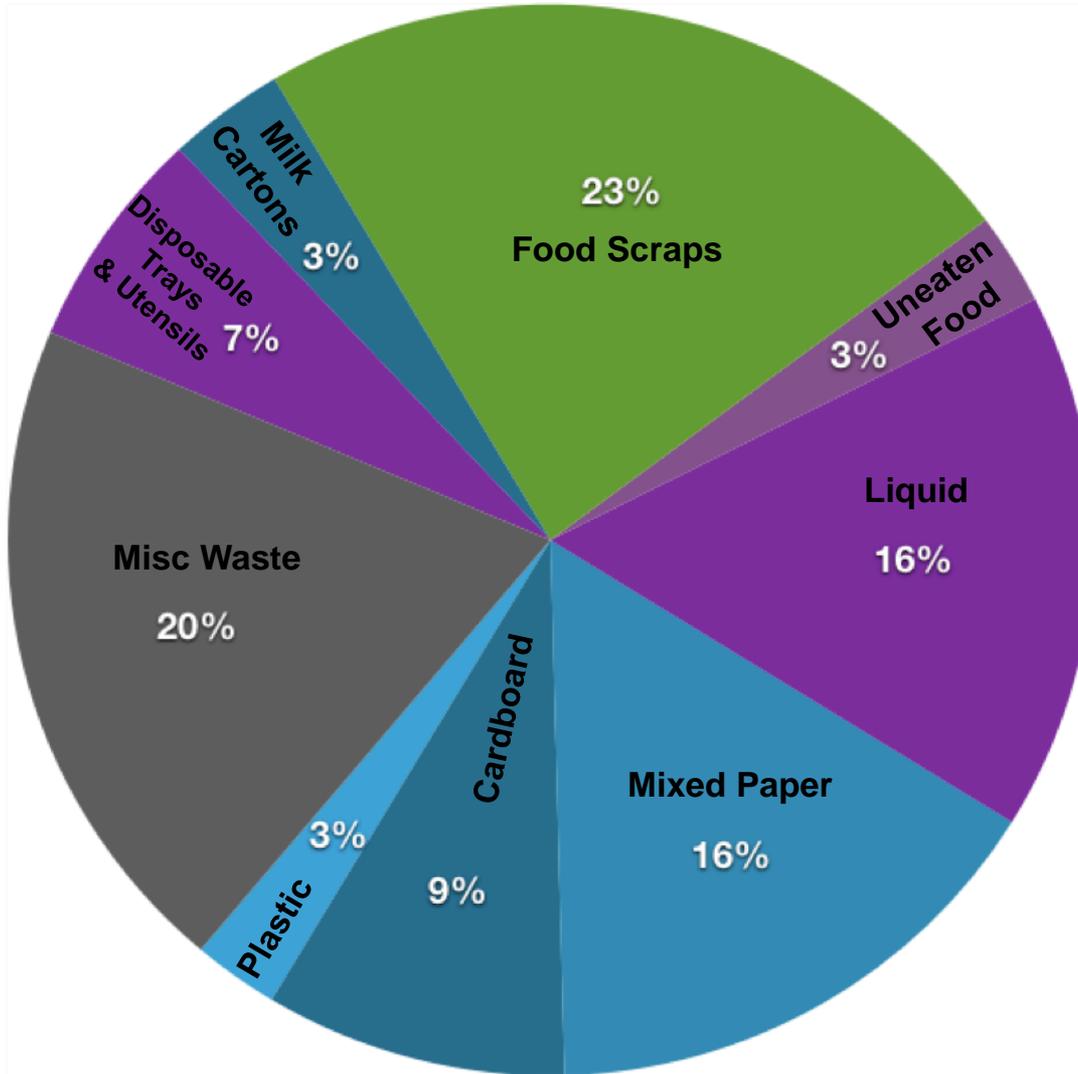
Waste at an Average School

* based on actual data from Holmes Elementary



Average School Waste Mix

* based on actual data from Holmes Elementary



23% can be **COMPOSTED**

31% can be **RECYCLED**

26% + can be **ELIMINATED**

20% or less **LANDFILLED**

From 75% to 20% Landfill

CPS Waste Audit Results

CPS: Peterson Elementary

900 students = 584.15 lbs/day of waste*
1 school year = approx. **102,810 lbs/yr**

CPS: Namaste Charter School

400 students = 519.4 lbs/day of waste*
1 school year = approx. **91,400 lbs/yr**

CPS: Northside College Prep

1,100 students = 2,144.86 lbs/day of waste*
1 school year = approx. **377,495 lbs/yr**

* includes all waste from the school for 1 day: landfill, recycling, food scraps, etc.

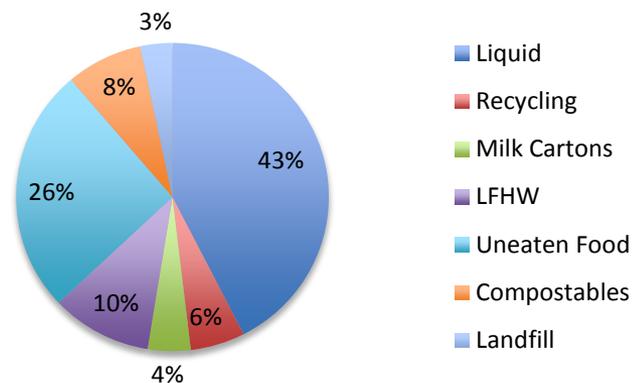


CPS Breakfast Waste Audit Results

George Washington Elementary (Nov 2011)

- 301 milk cartons used each morning
= **51,113** milk cartons could be recycled each year
- 99.6 pounds of liquid each morning
= **16,932** pounds could be kept out of the landfill each year
- 398 paper bags used each morning
= **67,660** bags could be recycled each year

**George Washington
Breakfast Data**





Breakfast Waste Reduction Goals

based on the breakfast waste audits conducted in Nov/Dec 2011

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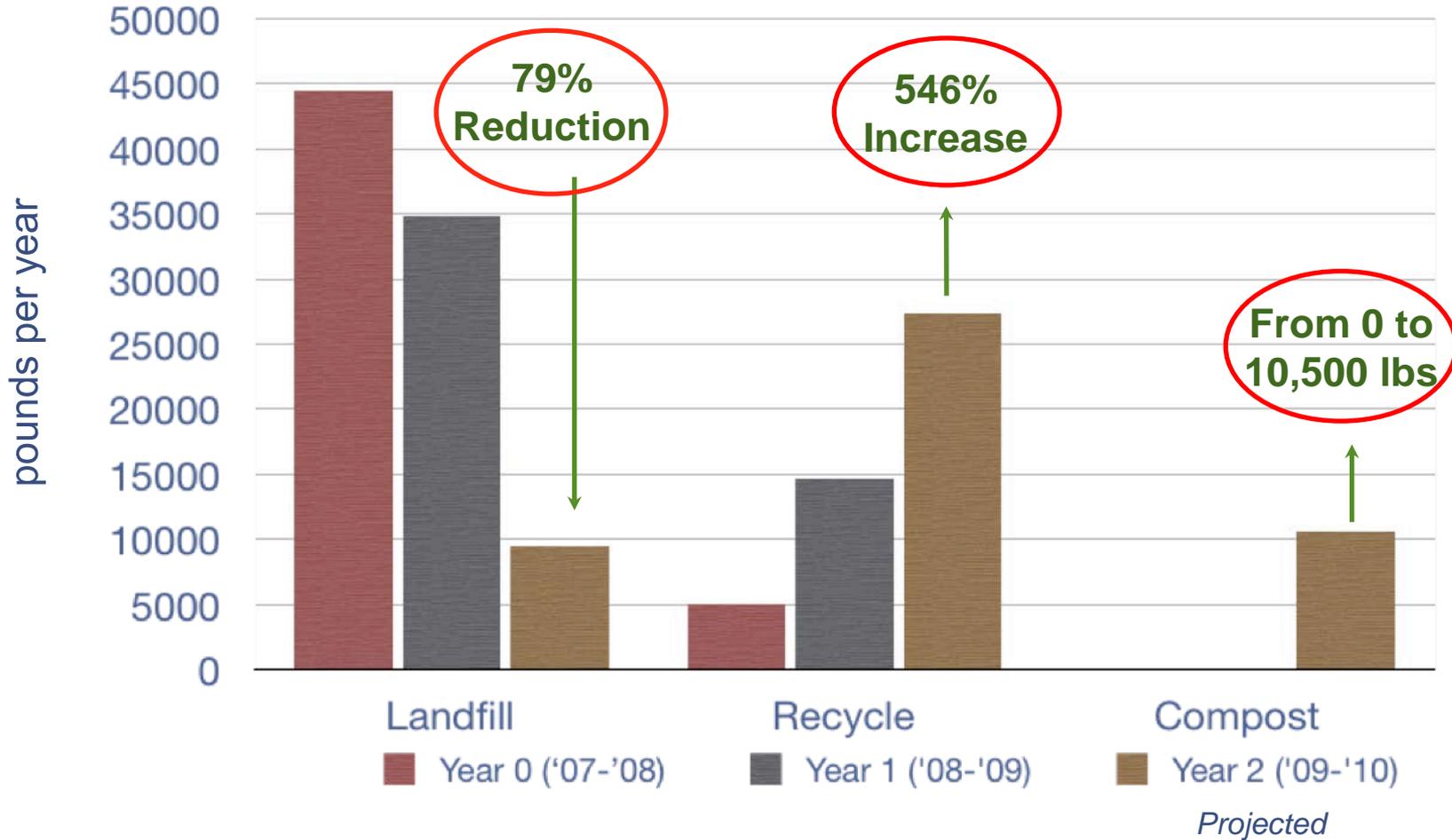


Plan Goals & Strategies

- Increase Recycling
- Green Cafeteria
- Reduce Waste at its Source
- Paper Usage/Copying Policy
- Composting



Progress Over the Years





Beye Elementary School Results

Composting approximately 1/2 of lunchroom food for school garden and grounds



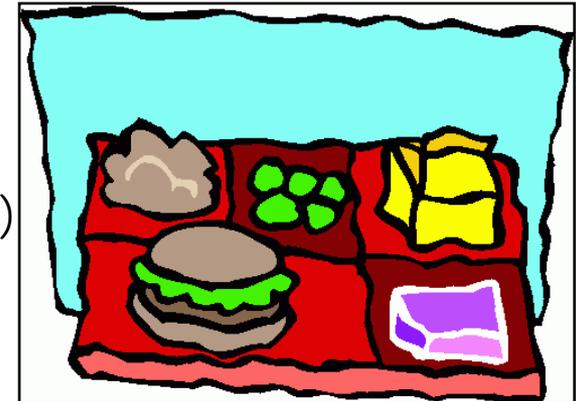
Since starting with ZW in 2008, Beye has:

Decreased TRASH generated by 55%
Increased RECYCLING by 76%



In 2 ½ years, Beye diverted from landfill:

- **Almost 5,400 lbs** of *food waste* (aver 18 lbs/day)
- **Over 10,000 lbs** of *liquids* (aver 34 lbs/day)
- **900 lbs** disposable *trays* year 1 (14lbs/day, \$5100/yr)
- **160 lbs** *paper towels* year 1 (dryers in 2 washrms, now diverting estimated 1lb/day)



What Can I do?

- Start or join a Green Team at your school
- Help organize a Family Eco-Night or Eco-Assembly
- Talk to your principal about using green vendors and buying green office supplies
- Incorporate environmental education lesson extensions into your current curriculum





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Why ZW Education is Important

- Environmental benefits
- Environmental stewardship
- Preparing for green jobs
- Can enjoy cost savings
- Opportunity for students to gain leadership skills and take ownership over health of school/environment/community
- Can involve all aspects of school and community



Talking Trash

Help students and staff change the way they think about trash. Change the image from that of a big smelly black bag you don't want to think about to a challenge in conserving resources and diverting from the landfill.



“Landfill”

ZW Curriculum Overview

- Elementary (K-5)
- 8 Lessons
- Aligns to Core Curriculum
State Standards
- Packed with fun educational
hands-on activities



ZW Curriculum Tied to the School Environment

- Reducing
- Reusing
- Recycling
- Composting
- School/community garden



Easy Changes You Can Make Now

- Decide what to change in your own classroom
- Engage students
- Assign recycling champions
- Create signs and posters



RECYCLING CHAMPIONS

To save the world...one piece of recycling at a time...

- 1) Make sure the classroom sorting station is set up at the beginning of breakfast (check that there are signs on each container)

SORTING STATION: Each morning the breakfast sorting station should be set up the same way.

- a) green bag for uneaten food (LFHW),
- b) bucket for liquids,
- c) blue container for empty milk cartons,
- d) blue container (or cardboard box) for other recycling (paper bags), and
- e) black container for landfill



- 2) OPTIONAL: walk through class near the middle of breakfast to collect whole uneaten food in the green Love Food Hate Waste bag

- 3) Help other students know how to put their waste in the right container (answer questions)



- 4) Make sure all milk cartons get emptied before being recycled

- 5) Check recycling container to make sure it only has recyclable materials

- 6) Check landfill container to make sure it does not have anything that should be recycled

- 7) After breakfast, put all containers and the bucket in the hall outside the classroom to be collected

Field Trips/Guest Speakers

- Landfill/Recycling/Composting Center
- Educycle Recycling Center
- Land and Lakes
- The Rebuilding Exchange
- Working Bikes
- Chicago's Green City Farmers Market
- Urban Worm Girl
- Master Composters
- ZW Schools



SGA's Role

Consultant for school or district

- Strategic Planning
- Waste Audits
- Education
- Product/Materials Research
- Communication
- Identify funding



Join us for our next ZW Workshop

Whole Foods Lincoln Park

Monday evening – April 29, 4-6pm

Contact Shari Brown with questions:

shari@sevendgenerationsahead.org

ZW Story Part 3

- e) As a group, brainstorm ways to overcome some of the challenges you have listed. Record a couple of solutions
- f) What is the next step for you to take on your zero waste journey? What will you do next?

Fresh from the Farm



- Fresh from the Farm:
 - Began in 2004
 - Initially focused on school lunch program; local food sourcing
 - Expanded to curriculum development
- Program Dissemination:
 - Direct Implementation (teaching at 4-6 schools in 2013)
 - Educator Training
 - FTS Consulting



WANT TO LEARN ABOUT FARM TO SCHOOL?

Don't miss our next Educator Training Workshop in Chicago, IL

Fresh from the Farm is an externally validated and nationally ranked experiential farm to school program featuring K-8 curricula that encourages healthy choices and environmental awareness among children. *Fresh from the Farm* curricula align with Common Core and Illinois State Learning Standards.

QUESTIONS?

Email:
shari@sevengenerationsahead.org
www.sevengenerationsahead.org
708.628.4505



Cost of training: \$145* per person. Walk away with:

- Curriculum **materials and activities** to implement immediately in your classroom
- Knowledge and resources to **start and maintain a garden**
- A **network** of farm to school experts and educators to support your efforts

/9/13 and save \$10!

Truck Farm Chicago



A project of Seven
Generations Ahead and
Green Sugar Press

Contact:

Sydney@sevengenerationsahead.org

- A mini-farm planted in the bed of a biodiesel pick-up truck.
- Designed to engage kids in conversations around food and health.
- Delivers programming in gardening, composting, nutrition, and cooking to schools, farmers markets, and community organizations
- Shows that you can grow healthy food anywhere there's sun, space, and creativity.

Thank You!



Jen Nelson, Seven Generations Ahead

jennifer@sevengenerationsahead.org / <http://www.sevengenerationsahead.org>

Shari Brown, Seven Generations Ahead

shari@sevengenerationsahead.org / <http://www.sevengenerationsahead.org>