

School Recycling in Massachusetts

November 18, 2020

Massachusetts Department of Environmental Protection

Ann McGovern, Consumer Waste Reduction Coordinator
Massachusetts Department of Environmental Protection

Free Resources Available from MassDEP to help your municipality implement school recycling and waste diversion

- MassDEP Waste & Recycling Grants & Assistance <https://www.mass.gov/service-details/massdep-waste-recycling-grants-assistance>
- Sustainable Materials Recovery Program grants
- Technical Assistance
- The Green Team program, www.thegreenteam.org

Sustainable Materials Recovery Program Grants

<https://www.mass.gov/how-to/apply-for-a-sustainable-materials-recovery-program-smrp-municipal-grant>

Include many grant items, such as:

- Recycling Dividends Program (RDP)
- School Recycling Assistance
- Small Scale Initiatives
- Mattress Recycling Incentive
- PAYT/SMART Implementation Funds
- Education & Enforcement Coordinator
- Curbside Recycling/Organics Carts
- Drop-off Equipment
- Waste Reduction/Organics Capacity Projects

Minimum Eligibility Requirements (for all SMRP grants)

- In 2021, municipal grant applicants will need to certify that paper, cardboard, bottle and can recycling is available in all municipal buildings, including schools, or will be within 30 days of award notification.

Materials Disposal Bans

<https://www.mass.gov/guides/massdep-waste-disposal-bans>

Materials Currently Banned from Disposal or Transfer for Disposal in Massachusetts

- Asphalt pavement, brick and concrete
- Cathode ray tubes
- Clean gypsum wallboard
- Commercial food material
- Ferrous and non-ferrous metals
- Glass and metal containers
- Lead acid batteries
- Leaves and yard waste
- Recyclable paper, cardboard and paperboard
- Single-resin narrow-necked plastic containers
- Treated and untreated wood and wood waste (banned from landfills only)
- White goods (large appliances)
- Whole tires (banned from landfills only; shredded tires acceptable)

School Recycling Assistance Grants History

- 26 school districts awarded (2013-2020)

FY13 – Abington, Boston, Chicopee, Danvers, Medfield, Middleboro, Winchester

FY14 – Ayer, Hingham, Holyoke, Rockport

FY15 – Dedham, Sharon

FY16 – Fitchburg, Greenfield, Kingston, Sandwich

FY17 – Arlington

FY18 – Salem, Somerville, Uxbridge

FY19 – New Bedford, North Andover, Stoneham

FY20 – Millbury, Townsend

Total Grant Amount Awarded: \$651,876

Salem School Recycling Assistance Grant Highlights

- FY18 grant - \$30,000 (\$5,000 implementation; \$25,000 equipment)
- Equipment inventoried and purchased as needed:
- 18 g blue bins (classrooms);
- 96 g wheeled carts (per recycling hauler);
- Tandem and single dollies;
- Recycling barrels for dollies;
- Recycling tilt trucks for cardboard;
- Flyer and signage printing;
- Stipend (2 years - \$2000 expended; \$28K on equip)

Challenges

- Grant coordinator and school recycling coordinator retired halfway through the 3-year grant duration;
- Micaela stepped in and coordinated with facilities and custodial staff to utilize the remaining funds available based on maximizing efficiency of recycling collection;
- Covid-19 interrupted the 3rd year of the grant, but Micaela was able to purchase equipment needed and wrap up the grant remotely.

Successes

- Expansion and systemization of recycling throughout the district;
- Top-down support for school recycling, including Superintendent, principals and teachers;
- Increased student involvement and leadership among peers;
- Recycling increased 6% and trash decreased 6% (2018-2019);
- Successful collaboration between Salem Engineering Dept and School Facilities Dept.

City of Salem Contact Information

Micaela Guglielmi

Waste Reduction Coordinator

City of Salem – Engineering Dept.

98 Washington Street – 2nd Floor. 01970-4023

978-619-5672

mguglielmi@salem.com

Key School Recycling Resources

- School Recycling Policy Template link

<https://www.mass.gov/doc/school-recycling-assistance-sample-recycling-policy-template-0/download>

- School Recycling Implementation Plan

Create a roadmap for your school district

- THE GREEN TEAM www.thegreenteam.org

THE GREEN TEAM

Program Highlights

- Resources on www.TheGreenTeam.org website
- Educational materials and activities
- Free recycling & composting equipment
- Free idling reduction signs and materials
- Recycling, composting and share table signage
- Webinars and videos
- Recognition and prizes



MassDEP Contact Information

Ann McGovern, Consumer Waste Reduction Coord.

Mass Department of Environmental Protection

ann.mcGovern@mass.gov

617-292-5834

HOW AND WHO: SETTING UP EFFECTIVE RECYCLING PROGRAM INFRASTRUCTURE

School Recycling Webinar | November 18, 2020



FREE ASSISTANCE FOR BUSINESSES & INSTITUTIONS



RecyclingWorks in Massachusetts is funded by MassDEP,
delivered under contract by the Center for EcoTechnology
recyclingworksma.com





Educational Materials & Activities

Free Idling Reduction Signs & Materials

Free Recycling Equipment

Recognition & Prizes



WHY SHOULD YOUR SCHOOL RECYCLE?

Comply with Massachusetts waste bans

Promote environmental stewardship

Easy setup with DEP resources



STEPS TO SET UP A RECYCLING PROGRAM

- ☐ Build support & identify decision makers
- ☐ Identify what materials to collect
 - ☐ Where are they generated?
 - ☐ Who will move them?
 - ☐ How will they get moved?
 - ☐ What equipment is needed?
 - ☐ Does this match what your hauler can take?
- ☐ Training & messaging for users and movers
- ☐ Right-size dumpsters
- ☐ Celebrate & refocus!



WHAT KIND OF RECYCLABLES, AND WHERE?

	Kitchen/ Receiving	Cafeteria	Classrooms	Offices	Copy Room	Gym/Sports Fields	Events
Cardboard	x	x		x			
Paper			x	x	x		
Bottles & Cans	x	x	x	x		x	x
Food Scraps	x	x	x				



<https://recyclingworksma.com/waste-bans-and-compliance/>



WHO IS MOVING MATERIALS?

- Determine before purchasing equipment
- Students – certain classes or Green Team clubs
- Custodial staff
- What kind of equipment will be most helpful for them?



CONTAINER TYPES & CONSIDERATIONS

- Outdoor containers – ground level or loading dock
- Deskside bins vs. central collection areas in common spaces (staff)
- Paired bins
- Color-coding



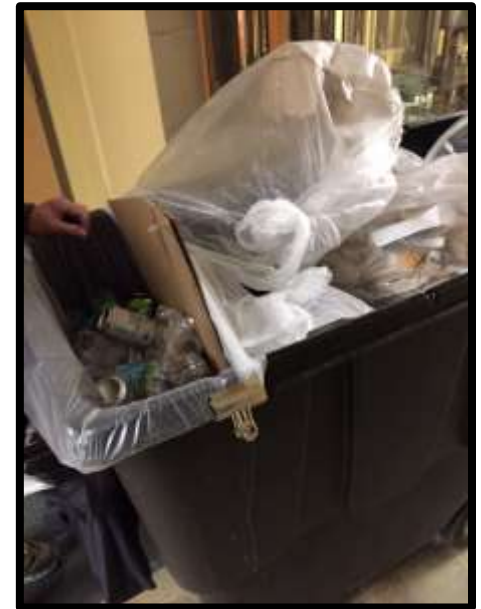
CUSTODIANS ARE YOUR RECYCLING CHAMPIONS

- Address concerns from custodial staff
- Same material, just separated.
- Feedback welcomed for continuous improvement.
- Incorporate language into contracts about compliance with all federal/state/local regulations



CONSOLIDATING MATERIALS

- Handle both streams daily → avoid heavy consolidation before hauler pickup day
- Interim containers to put material in dumpster (e.g. tilt cart)
- Dual or split carts vs. making multiple rounds



Always Empty Recyclables out of Plastic Bags

Bags tangle recycling equipment causing delays, injuries and extra costs.



Pair trash and recycling bins whenever possible. Use color-coded plastic bags as liners to keep bins clean and make it easier to move materials.

Leave recycling bags untied or loosely tied so they are easy to empty.

Color-coded plastic bags make it easier to visually differentiate so that trash doesn't get confused with recycling in one cart.



Always empty recyclables out of the plastic bag into the dumpster.



Reuse or dispose of the plastic bag in the trash.



MANAGE

- Hard to collect in outdoor carts (e.g. 32 gallon)
- May use different containers for collection
 - Flatbed cart
 - Tilt cart
 - Hamper
- Place cardboard dumpster by kitchen for year-round deliveries



PLEASE FLATTEN CARDBOARD BOXES

Help us recycle even more by flattening your cardboard.
It's as easy as opening the top of the box!

- 1 Remove all packaging from box



- 2 Open the bottom of the box the same way you opened the top



- 3 Flatten the box completely



- 4 Place in recycling bin



KITCHEN COLLECTION

- Materials generated from deliveries, food preparation
- Easily accessible and available bins – clustered bins
- Keep recyclables clean
- Good housekeeping practices
- Shared responsibilities



CAFETERIA WASTE STATIONS

- Placement must accommodate end-of-lunch rush
- Student or staff monitors to improve sorting
- Mobile stations
- Design for the student AND custodian



MANAGING FOOD WASTE OFF-SITE VS. ON-SITE

- Materials accepted vary by end site/process
- Larger schools may be subject to commercial organics waste ban
- New Age Composters & worm vouchers available through THE GREEN TEAM
- Contract with local composter or animal feed operation



SIGNAGE CAN REDUCE CONTAMINATION

- Use images of materials found at school
- Keep it clean – avoid too much text
- Confirm with Recycle Smart MA & your hauler about what goes in the bin
- Place at eye-level for your students



Label at each bin or barrel.



FUNDING CONSIDERATIONS

- Strive for cost-neutrality
- Potential savings from avoided trash hauls
- Align programs with school fiscal year, as soon as district starts planning
- Commodity pricing
- Free equipment through THE GREEN TEAM
- SMRP District Grants & RDP Funds



RESULTS

- Increased diversion can result in reducing trash service
- Use hauler/custodial feedback and reports to shape program.
- Share story to school committee/press
- Great Job to all involved!



USEFUL RESOURCES

[Starting a School Recycling Program](#)

[Hauler Contract Guidance](#)

[Cardboard Box Graphic](#)

[Plastic Bag Graphic](#)

[Recycle Smart MA](#)

[Food Waste Diversion Guide for Schools](#)

[Cafeteria Source Separation Video](#)



THANK YOU

THE GREEN TEAM
recycle@thegreenteam.org
(413) 586-7350 x225

www.thegreenteam.org

RecyclingWorks in Massachusetts
info@recyclingworksma.com
(888) 254-5525

www.recyclingworksma.com

Heather Billings, heather.billings@cetonline.org, (508) 479-3713



Recycling in Cambridge Schools

Building a Culture for a
Sustainable Program

Meryl Brott, Recycling Program Manager
Dept of Public Works

Schools

- 11 Elementary
(avg. 300 students each)
- 4 Upper Schools inside
4 Elementary School
Buildings
(avg. 600 students each)
- 1 Combo Elementary +
Upper
(425 students)
- 1 High School
(1,950 students)



Department of Public Works

- Recycling Program Manager
(works with schools in addition to other duties)
- Supplies for recycling
 - Carts (dumpsters, hampers)
 - Bins - "blue bins" and "deskside bins"
 - Recycle and trash for entrances
- Materials for teachers, posters, signage



Custodians

- Top-down support
 - Meeting with Chief Operating Officer and Senior Custodians
- Present annually before school year begins
- Visit schools, build relationships
- Provide carts & classroom bins
- Follow up on feedback re: where attention is needed
- Custodians remove recycling from classrooms
- "Get Rid of It Right" document

Chief Operating Officer

Director of Facilities


Custodian Supervisor

Senior Custodians


Custodians

CPS **Get Rid of It Right**


**TV's, Electronics, Small Appliances, etc.
Ink Cartridges***

 When there are 8 items or more have your school's tech ask the main ICTS office to request a pickup.
* can also return to office supply company / manufacturer
If you have an abandoned TV send it cannot wait contact Meryl by email

**Air Conditioners, Refrigerators
Metal Items** (Stoves, Ovens, Cabinets, etc.)


 Contact Meryl at DPW: #4836, mbrett@cambridgema.gov

Fluorescent Bulbs & Non-Alkaline Batteries

 Contact Ray Rizak to make arrangements (bring to H-Hill
Collection, bring to Recycling Center, Contractor Removal)



Hazardous Waste

Oil Based Paints, Cleaners, Solvents, Non-Alkaline Batteries, Fluorescent Bulbs*, Thermostats*,
Thermistats*, etc. Dry and latex paint and put in tank with the lid off.

 Hold for Household Hazardous Waste Collection,
usually held April, June, September, November.
*household may come to your school for pickup of items with hazardous

Please:

- Report request pick-up: CambridgeMA.DPW@11
- Request additional pickups: ray.rizak@cambridgema.gov
- Student working outdoors: quickly and how fast items work by email (preferred), phone, fax
- Return all cardboard going to the dumpster
- Email Meryl for blue bins, double bins, totes, totes

 Meryl Brett, DPW: mbrett@cambridgema.gov #4836 

**Thanks
for Getting
Rid of It Right!**

Interoffice Recycling Memo

To: Senior Custodians, Cambridge Public Schools
Cc: James Maloney, Chief Operating Officer CPS
Dr. Jeffrey Young, Superintendent of Schools
Jack Mingle, Food & Beverage Director
Principals, Cambridge Public Schools
Kitchen Supervisors
Lisa Peterson, DPW Commissioner
John Nardone, DPW Assistant Commissioner for Operations
John Fitzgerald, DPW Environmental Services Manager
Randi Mail, Recycling Director
Recycling Advisory Committee
School Committee
From: Dana Ham, Director of Facilities
Meryl Brott, Recycling Program Manager, DPW

RE: School Recycling Procedures

Please keep this reference for recycling and waste procedures, which should be normal routine. Senior custodians are the main point person for recycling staff, but all school contacts should be aware of the procedures and operations at your building.

DPW rubbish crews notify recycling staff if there are any unauthorized materials in a school trash dumpster such as cardboard, computer monitors, televisions, fluorescent bulbs or metal items. These items are banned from disposal in MA and the state has increased enforcement efforts. If there is a problem, Meryl immediately contacts the school to troubleshoot the issue.

Most custodians are already faxing the self-reporting worksheets. You can also call or email the info to x4836 / mbrott@cambridgema.gov, or send through interoffice mail. Please start this week if you are not reporting recycling. We use this information to track your recycling progress and ensure that programs are sustainable.

If you have any questions, let us know. We look forward to working with you to promote recycling among the school community. Again, thank you for your continued efforts to maintain a solid recycling program.

All the best,

Dana Ham
Director of Facilities
Cambridge Public Schools
T 617.349.6855
F 617.349.6477
dham@cpsd.us

Meryl Brott
Recycling Program Manager
Cambridge Public Works
T 617.349.4836
F 617.349.4868
mbrott@cambridgema.gov

Self-Reporting Worksheets (See attached)

Custodians send this info to DPW on a weekly basis to report type and quantity of recyclables set out for collection. Schools must send these to DPW to receive credit for their recycling efforts.

Recycling Education Assistance

The DPW can give presentations at your school, and the state's Green Team program is also an excellent resource. www.dpw.state.ma.us Contact Meryl for assistance or visit www.cambridgema.gov/recycle click About Recycling, then Schools.

Toters

95 or 115-gallon totes are used for single stream recycling (papers and containers) for weekly pickup. Some schools use totes or dumpsters for cardboard, but most have dumpsters. If M. Brott, the City's curbside hauling pickup recycling totes and dumpsters once a week. Contact Meryl to replace a broken tote.

Curbside Bins

28-gallon bins may be used in copy rooms, classrooms, offices, or cafeterias for single stream recycling. All recycling should be free of food, meat, and Styrofoam.

Desktop Bins

Provided by DPW, these 26-gallon bins may be used for recycling in classrooms. The "trash buddy" clipped on the side is used as an indicator of trash cans. Since about 90% of office waste is paper, recycling helps and free up space.

Styrofoam

Styrofoam recycling stands with a CLEAR sign should be used to handle. Multiple scraps build into the trash or compost barrel and in the bins. Custodians receive the bags to a designated location for STYRO-Program of the Dorset Public Schools. Get clear bags for STYRO-Program of the Dorset Public Schools. Get clear bags for STYRO-Program of the Dorset Public Schools.



Food Scraps

A few Cambridge schools have begun the pilot food scrap composting program. Food scraps (the bags are placed in bins provided by the waste of waste). Schools interested in composting.

Liquids

A liquids bucket for drinks and soap should be used in each trash and in the trash placed down the drain through a strainer. This makes the trash.

Metal Items

Contact Meryl for assistance if you need a pickup of large metal items.



Computers, Monitors, TVs, and Other Electronics

Electronics should be recycled separately and not in the trash. The state's Green Team program is also an excellent resource. www.dpw.state.ma.us Contact Meryl for assistance or visit www.cambridgema.gov/recycle click About Recycling, then Schools.

- Recycle all computers, monitors, TVs, mp3 players, cameras, cell phones, keyboards, mice, printers and other electronics. Contact the School MS Department at 617.349.6855 or helpdesk@cpsd.us for a pickup.
- All appliances including air conditioners, refrigerators, water heaters. Contact Meryl to arrange a pickup.



Fluorescent Bulbs & Mercury-Containing Devices

Although fluorescent bulbs contain mercury, they are a managed resource that are highly energy efficient. Fluorescent bulbs and lamps include compact, U-bend, U-bend, compact CFLs & High Intensity Discharge (HID). These materials and fluorescent also contain mercury.



These bulbs and other mercury-containing devices must be recycled. Mercury is a toxic waste and is not to be disposed in trash and will be called. 1-800-848-1234 for full comprehensive information.

Do not break fluorescent bulbs to clean them and NEVER PLACE IN THE TRASH. These bulbs are all shapes and sizes and are highly energy efficient.

DPW provides free storage containers including 45-liter drums, 55-gallon drums, and 1-gallon pails to safely store and handle mercury devices. Do not use bulbs in incandescent. Place bulbs in an appropriately sized box and label the box for recycling. Tape box when full. Call Meryl for more information or for a pickup.

Batteries

All batteries that are not alkaline should be recycled. These include nickel cadmium, nickel metal hydride, lithium, silver oxide, zinc-carbon, and computer batteries. DPW can provide 3-gallon pails to collect and store batteries. Call

Cardboard

NEVER PLACE CARDBOARD IN THE TRASH

Cardboard is banned from MA landfills and incinerators. DPW trash trucks could be required at the waste transfer station if they contain materials subject to the state waste ban. Trucks must notify recycling staff if school dumpsters contain cardboard.

The most way to flatten a cardboard box is to fold the inside panel and just rip apart.



SCHOOLS WITH CARDBOARD ON MONITORS

Flatten all cardboard and place in the dumpster or bin. If you need an additional pickup, a larger dumpster or a truck call Meryl.

NEW: Please report cardboard on the self-reporting worksheets.



SCHOOLS WITHOUT CARDBOARD ON MONITORS

The District and Cambridge Public Schools should flatten, fold and stuff cardboard inside the trash, or place empty boxes inside or between the trash. Boxes can be stored and paper and/or containers can be placed inside boxes if there is overflow.

Be sure to record cardboard outside of bins on your self-reporting worksheets. Estimate whether the entire cardboard would fill a bin completely 2:3 or 3:5 full.

Send your recycling worksheet every week. Fax to 617.349.4836 or mbrott@cambridgema.gov or email to mbrott@cambridgema.gov. Recycling questions? Please call Meryl Brott, Recycling Program Manager.

in: Clean Bottles, Cans Paper & Cardboard

Do not empty glass bottles and other items into the trash. Place items at the curb on the day before. Recycle information on self-reporting worksheet and send to DPW as long as it is free from food and plastic wrap. Do not use containers for paper, plastic, or other materials or containers.



NO

- No FRIGIDERS
- No PLASTIC BATHS
- No STYROFOAM
- No PLASTIC WASTE
- No Containers, Drums or Hops
- No Clothes Hangers
- No Electronics
- No Light Bulbs
- No Paint Containers
- No Paper Towels or Napkins
- No Photographs or Slides
- No Pots, Pans or Searing Mats
- No VCR or Camcorder Tapes
- No Windows, Photo Glass

Recycling Reports

- Weekly reports of recycling quantities.
- Allows for reporting impact of recycling.

School _____

Self-Reporting Recycling Worksheet

Date: _____ Time: _____ Person reporting: _____

Directions: Call, email or fax info to Meryl every week.
Tel x4836 Fax x4893 mhroth@cambridgesps.gov

 Indicate the number of full, 2/3 full or 1/3 full totes, dumpsters or hampers you have for single stream recycling and cardboard.

Thanks! By filling out this form your school will get credit for its recycling, and you'll help us track your progress and calculate the impact of your school's recycling efforts.

SINGLE STREAM (PAPERS & CONTAINERS)

 Number of **FULL** Totes: _____

Number of **2/3 FULL** Totes: _____

Number of **1/3 FULL** Totes: _____

CARDBOARD

 Number of **FULL** Totes: _____

Number of **2/3 FULL** Totes: _____

Number of **1/3 FULL** Totes: _____

CARDBOARD

 **DUMPSTER (CIRCLE ONE)**

FULL 2/3 FULL 1/3 FULL

 **HAMPER (CIRCLE ONE)**


FULL 2/3 FULL 1/3 FULL


Cambridge Public Schools Recycle! Thank you for all your efforts!


Cambridge Schools "Get Rid of It Right"
Making a difference by making less trash! Thank you!


350 Tons Recycled!


Last school year, Cambridge schools recycled more than 350 TONS of empty containers, paper and cardboard!

 5,950 Trees

 700 Barrels of Oil

 2.45 Million Gallons of Water

 243 Households' Worth of Electricity Use

 47 Truck Loads of Trash

These efforts also prevented 525 tons of carbon dioxide from being released and prevented the creation of methane in the landfill.

Please Remember:
Recycling is mandatory in Massachusetts; recyclable items are banned from the trash. In addition to protecting nature and animals and curbing climate change, recycling saves the city money. It's recommended to have recycle & trash side by side.

Wondering if something is recyclable? Want a presentation for your classroom? Need a recycling bin or "We Recycle at School" sign? Email mhroth@cambridgesps.gov


Some Items Require Special Recycling:
Contact your IT Tech to recycle Electronics, Coats, Printer/Toner Cartridges. Contact your Senior Custodian to recycle Fluorescent Bulbs, Metal Items, Non-Alkaline Batteries.

Reducing & Reusing is Better Than Recycling
There's a lot of waste and environmental impact that goes into making a product from scratch (check out the The Story of Stuff). REDUCE and REUSE and make a big difference!

A Few Tips: *Collect and use scrap paper *Reduce margins *Print on both sides *Use refillable water bottles *Share supplies/equipment

Cambridge Kids (& Families) Make Energy & Fertilizer - averaging 6.6 tons/month!

Food scraps from the Cambridge schools and residences go to an anaerobic digestion facility where they are used to make clean energy in the form of heat and electricity. Email mhroth@cambridgesps.gov for a bin to collect food scraps and paper towels in your classrooms (to be emptied by students daily).



Principals



Connect via email over the summer



Request time to present at teacher/staff meeting before school starts (or just after school begins)



Forward emails to teachers

- Start of school
- Periodic updates
- Go Green Challenge
- End-of-year clean-out

Teachers

- Provide recycling information for teachers to share & post in room
- Recommend: recycle and trash side-by-side
- Offer presentations
- Emails:
 - Start of school
 - Periodic updates
 - Go Green Challenge
 - End-of-year clean-out



Reaching Other Staff

- Food Services
 - Presentation before school year starts
- Human Resources
 - Information for new hires
- Clerks and Family Liaisons
 - Key partners
- Librarians
 - Presentations, books/displays, recycle quiz



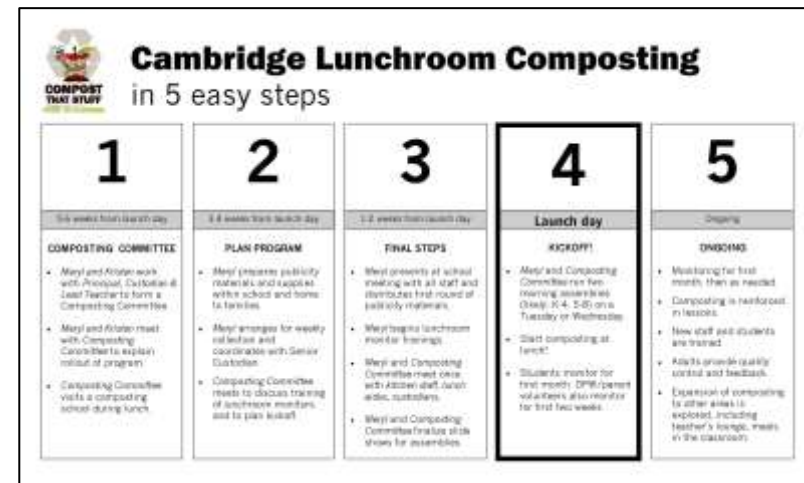
Cafeteria

- "Get Rid of It Right" here too
- Organize volunteers (start of school mostly)
- Work with Lunch Aides
- (Include in Lunch Aide job description)



Bringing Composting to Schools

- Presentation to teachers; packet of materials including Lesson Plans and Fact Sheets
- Logo, launch w/ banners, posters, pledge sheets, etc. and assembly -- made it a "big deal" and a source of school pride.
- CPS Sustainability Manager pressed principals: when/how soon would they start? (not if)
- Custodians knew it was coming; senior custodian on the school's implementation team
- "Five Easy Steps" doc
 - replaced exhaustive 9-page Guide



We “get rid of it right”...



- Start of the school year packet for teachers



- Sorting Games for youngest kids, presentations



Meryl Brott

Recycling Program Manager

mbrott@cambridgema.gov

617-349-4836