

A STEP-BY-STEP GUIDE TO LUNCHROOM COMPOSTING

City of Cambridge, Massachusetts • 2010



COMPOST THAT STUFF

FOOD TO FLOWERS

Congratulations on your interest in lunchroom composting!

Like other new recycling initiatives, a composting program requires careful planning to engage, educate and train all participants and responsible staff. This step-by-step guide is based upon the successful Food to Flowers Pilot Composting Program launch in March 2009 at the King Open School (www.cpsd.us/KOP/compost). This guide may be used by other schools however the City of Cambridge retains ownership of the worm-n-apple mascot.

This project was a collaborative planning and implementation process involving staff at the school, School Department (CPS), Public Works (DPW), and Health Department.

CPS principals and top administrators interested in establishing lunchroom composting should review this guide carefully to understand the commitment required by the school and steps involved for a program to be a success. Interested principals should inform Meryl Brott at Public Works, at mbrott@cambridgema.gov or 617-349-4836. DPW will develop a prioritized schedule to launch programs based on correspondence with principals. DPW can assist four schools per year, 2 in the fall and 2 in the spring. Fall and spring programs must be ready to begin the planning process no later than October 1st and February 1st, respectively, with a program start date no later than the 2nd week in November and the 3rd week in March, respectively.

The City had two main resources for development of the King Open Pilot Composting Program:

1. Free assistance from the San Francisco Environment Dept which began the Food to Flowers program in 2001, now operating in 100+ schools! (www.sfenvironmentkids.org/teacher/food_flowers.htm)
2. Composting in Restaurants & Schools: Municipal Toolkit (www.cetonline.org/Publications/res-schools-online.pdf), developed in 2003 for Northampton and Amherst in Massachusetts.

DPW and CPS shared the startup costs for educational materials and lunchroom collection containers. Operational costs are for biodegradable bags and curbside collection once per week. CPS is paying for biodegradable bags and DPW is paying for collection with remaining grant funds at present. Once these funds are depleted, CPS will need to pay for compost collection, as it does for Styrofoam recycling.

Once prices and product selection are competitive and complete, all Styrofoam and plastic food service ware will likely be replaced by biodegradable alternatives. That way, nearly all cafeteria waste can be composted. The City has decided not to phase in biodegradable alternatives, as this will confuse students and lead to contamination.

1. Principal Takes Initiative

1. Read this step-by-step guide
2. Visit a school to observe program and talk to custodian to understand procedure. (King Open)
3. Inform CPS and DPW Staff of your interest:
 1. Chief Operating Officer
 2. Director of Facilities & Support
 3. Director of Food Services
 4. Director of Public Information
 5. School Nutritionists
 6. DPW Recycling Program Manager
4. Speak with staff to introduce idea and gain support:
 1. Assistant principals
 2. Custodians
 3. Kitchen supervisors & lunch aides
 4. Teachers (identify lead teacher)
 5. CitySprouts coordinator
 6. Engage student leaders
5. Contact Recycling Program Manager (617-349-4836) to express interest, review process ahead and begin planning.
6. Form a "School Composting Committee" of faculty and staff that work together under the Principal's direction to ensure the program's success now, next year and every year thereafter:
 1. Principal
 2. Head Custodian
 3. Lead Teachers (at least 2 at all times, preferably 1 for each grade)
 4. Kitchen Supervisor
 5. CitySprouts Coordinator
7. Activities of the School Composting Committee may include:
 1. Conduct waste audit. Count trash bags for 1 week and weigh trash from 1 day. Do twice.
 2. Outreach & education during lunchtime. Ask students, do you know what composting is? What can be composted? Where does composting happen? Why is it important?

2. Principal Works with DPW Recycling Staff to Put Plan Into Action

1. Remember, fall and spring programs must be ready to begin the planning process no later than October 1st and February 1st, respectively, with a program start date no later than the 2nd week in November and the 3rd week in March, respectively.
2. The best approach is to choose an ideal launch date when the assemblies occur in the morning and that day is the 1st day of composting in the lunch room. You will need to develop a calendar leading up to the launch that includes meetings with all staff and compost monitor trainings.
3. Schedule school-wide assemblies
 1. At least 3 weeks in advance to allow meetings with school staff
 2. On a Tues or Wed morning of the kick-off day to introduce students to program.
 3. DPW has 2 versions of a 15-minute PowerPoint slideshow for K-4 and 5-8.

4. Dress rehearsal
 1. One needed if only DPW staff presenting.
 2. Two if students/teachers planning other elements.
 3. Check stage, lighting, curtains, timing, computer/projector set-up, microphone, etc.

4. Education Campaign
 1. Recycling staff meet with all kitchen staff/custodians/lunch aides
 1. Review lunch schedules
 2. Clarify whether students in each grade handle their own waste

 2. Recycling staff meet with all teachers
 1. Prepare and distribute teacher packets

 3. Compost monitors
 1. Lead teacher recruits other teachers to volunteer classes

 2. Trainings: recycling staff train 1 class in each grade – 1-2 weeks before kick-off.

 3. Lead teacher sets rotating schedule of monitors for school year.

 4. Outreach to Parents
 1. Schedule Edulink message 1 week before assemblies with Director of Public Information

 2. Letters sent home 1-2 weeks before school assemblies

 5. Get publicity materials printed with apple-n-worm mascot
 1. School Admin office paid for posters/banners to be printed and used their color copier for letters – enough for all students and teachers. Color copies better for pictures.

 2. DPW printed/laminated at Library or with clear packing tape: signs for barrels, table tents, monitor medallions

 3. 1 week before assemblies
 - a. Hang lunchroom banners
 - b. Hang 4 FAQ posters per floor in prominent hallway locations

 4. Day of assembly
 - a. Hang 2 lunchroom signing posters (Teachers for K-3 may want signing posters for classroom to do separate for lunch period and then hang in cafeteria. If so request 2 weeks in advance.)

 - b. Give stickers to students during lunch (works well after signing poster)

 - c. Give aprons to kitchen supervisors

- d. Have medallions available for student monitors. Cafeteria staff should know where they will be kept.
- e. Set out table tents in cafeteria (done every day during 2 week launch)
- f. Affix signs to lunchroom barrels: Trash, Styrofoam, Compost, Liquids

3. School Staff Work with Recycling Staff to Get Operations Ready

- 1. Lunchroom logistics
 - 1. Styrofoam recycling: ensure clear bags are being used & available
 - 2. Order 20-gal yellow brute barrels for compost
 - 3. Get supply of biodegradable bags from Director of Food Services
 - 4. 5 gal pails for liquids
 - 5. Colander for drain closet to separate solids when emptying liquid pail
 - 6. Custodians wash trash barrels and affix signs (Trash, Compost, Styrofoam & Liquids)
 - 7. Set up delivery of curbside totes and keys before program start
 - a. Totes are locked
 - b. Lined with regular plastic bags held in place when emptied by truck with a giant rubber band
- 2. Collection logistics
 - 1. Where to store curbside totes between pickups and where to set out for pickups
 - 2. Where liquids bucket will be poured out (drain closet or slop sink?)
 - 3. Where table tents and monitor medallions will be kept
 - 4. Set pick-up schedule / times: 2 days/week for large schools, 1 day/week for small
 - 5. Put hauler in touch with custodian (Save That Stuff 617-241-9998)

4. Monitoring Lunch

- 1. Lead teacher set schedule of rotating classrooms to be compost monitors
- 2. DPW observe lunch periods
 - 1. Recycling staff will be at lunch for 1-2 weeks after kick-off and then spot check as needed. Determine if parent/recycling committee volunteers can help during 1st couple weeks.
 - 2. Set out table tents
 - 3. Show student monitors the medallions to wear with instructions.

4. Pick out contaminants from plastic
 1. show custodians it's not a big deal
 2. Emphasize importance of clean compost & zero contamination (ex. farmers can't have litter on their fields)

5. Go to each table & talk with students, ask them:
 1. What goes in each barrel
 2. Why is composting important
 3. What do they like to do in nature
 4. Guess how many pounds of compost have been collected

6. Troubleshoot issues with custodians

3. DPW provides regular feedback to School
 1. How much food was composted
 2. Importance of clean compost & zero contamination

5. Year 1: Follow-up / Next Steps

1. School composting committee
 1. Follow-up meeting after week two to discuss program

 2. Reinforce through indoor/outdoor classroom lessons

 3. Develop additional ways to address contamination
 1. preventative = education
 2. reactive = custodial maintenance

2. Morning announcements to reinforce program

3. Other areas for compost collection:
 1. Students that eat meals out of cafeteria (ex. power reading)
 2. Teacher's lounge (they may be able to just bring into main cafeteria)
 3. Breakfast (teachers w/younger classes, may have small bucket in classroom to empty at lunchtime)
 4. After school programs
 5. Summer programs
 6. Paper towels in bathrooms

4. Work with Director of Food Services to further waste reduction
 1. Alternatives to individually wrapped items
 2. Food waste – unopened/uneaten fruits, yogurts, milks, veggie packs, etc.

6. Year 2: Principal Takes the Lead to Ensure Program is Sustained and Sustainable

1. Check Inventory & Signage Before 1st Day of School

- | | |
|---|--|
| <input type="checkbox"/> compost totes | <input type="checkbox"/> banners in school / cafeteria entryways |
| <input type="checkbox"/> compost collection barrels | <input type="checkbox"/> commitment posters |
| <input type="checkbox"/> liquid buckets | <input type="checkbox"/> poster in lunchroom |
| <input type="checkbox"/> trash barrels | <input type="checkbox"/> monitor medallions |
| <input type="checkbox"/> compost bucket in kitchen | <input type="checkbox"/> table tents |
| <input type="checkbox"/> biodegradable trash bags | <input type="checkbox"/> 8.5 x 11 signs in the cafeteria line |
| <input type="checkbox"/> signs on the trash, liquid and compost barrels | |

2. Assign 2 faculty or staff to attend every lunch period over the first 3 days of school to talk to students at lunchtime and remind them of the procedure

3. Convene School Composting Committee

4. Call DPW and confirm collection details on start date, collection day and location

7. Review /Refresh Program with Faculty & Staff

1. Review program with teachers, ask them to do a 10-minute review with students, give slide show handout review packet and poster to post in classroom by lunch menu

2. Include reminders in morning announcements

3. Lunchroom monitoring

1. Train classes to be compost monitors and develop rotation schedule

2. Coordinate oversight in lunchroom through School Composting Committee

8. Weeks 1 and 2 of School, at / before Lunch:

1. Table tents on tables

2. Give pre-lunch presentations/trainings to Kindergarten classes

3. Visit tables and remind kids about composting and what goes in trash

4. Check in with custodian regarding how it's going, which lunches need improvement

9. Ongoing:

1. Task one or two adults to check in with custodian, watching the compost periodically, making sure everything is going smoothly, trouble-shooting where needed.

2. Principal to visit classroom of grades not composting correctly

3. Give reminders and feedback: quantity composted, common contaminants

- Principal and Assistant Principal visits lunchrooms and tables to remind students and thank them

10. Involve the Kids:

- Have students sign commitment posters to compost
- Create a display / collage of what goes where (compost, liquids, trash, styrofoam)
- Use finished compost in CitySprouts gardens / outdoor classroom
- Grow a plant in your classroom with finished compost (compare to a plant grown in different soil)

11. Budget

Based on FY09 costs. Prices subject to change.

Start-up Costs				
Item	Quantity	Each	Total	Notes
banners	2	\$180	\$360	School Dept funds.
FAQ posters	6	\$ 48	\$288	School Dept funds. Color posters on foam core.
signing posters	3	\$ 0	\$0	Printed at DPW.
letters to parents / teachers	400	\$0	\$0	Color copies printed at Superintendent's office.
aprons	10	\$0	\$0	Provided by CPS Food service office.
iron on's for aprons	12	\$15	\$15	DPW funds. NeosUsa, Item HEWC6049A. Not permanent, doesn't withstand washing. Permanent alternative would be much better.
yellow 20 gal container	4	\$30	\$120	DPW funds. Grainger 1-877-202-2594. Lids not necessary. (for lunchroom stations + kitchen)
yellow folders for teacher packets	2 boxes of 25	\$6.50	\$13	DPW funds. NeosUsa, Item ESS57509.
teacher packet info	50	\$0	\$0	Copies printed at DPW. Color & black/white.
5 gal pails	3	\$0	\$0	Reused from Save That Stuff: 617-241-9998.
table tents	30	\$0	\$0	Printed at DPW laminated with packing tape.
medallions	10	\$0	\$0	Printed at DPW laminated with packing tape. "Rope" from bike tire tubes.
stickers for students	400	\$0	\$4	DPW funds. mailing labels (3000/box, \$27.95 ea)
barrel signs (8 per station, both sides of barrel: trash, compost, Styrofoam, liquids)	24	\$0	\$0	Color prints at DPW, laminated at library for no charge. May cost in future if library cannot assist.
TOTAL START-UP COSTS			\$800	
Operational Costs				
BioTuf bags	800	\$65	\$516	School Dept funds. 4 bags/day (3 lunchroom, 1 kitchen), 182 days (\$64.50/case - 100 bags/case). Costs subject to # of bags used.
curbside collection	36 pickups		\$576	1 day/week for all schools, some may have more toters than others. Vendor costs subject to change. Toter rental fee of \$3/toter/month waived. \$16 per pickup or \$95/ton if 400 pounds per pickup is reached.
ESTIMATE TOTAL OPERATIONAL COSTS			\$1088	

12. Program Materials

(Overview and lesson plans at <http://www.cpsd.us/KOP/compost/>)

1. Logo
2. Letter to Parents and Teachers
3. Banner
4. FAQ Poster
5. Signing Poster
6. K-3 Assembly Presentation
7. K-3 Assembly Script
8. 4-8 Assembly Presentation
9. 4-8 Assembly Script
10. Signs for Lunchroom Barrels (Compost, Liquids, Styrofoam & Trash)
11. Table Tents
12. Compost Monitor Medallion
13. Teacher Packets
 - a. Letter to Parents and Teachers
 - b. Classroom Poster
 - c. Student Factsheets (Composting with the FBI, The Dirt on Composting, What are Natural Resources, and How does your Garden Grow?)
 - d. Recycling Flyer "Recycling in Cambridge is Easy and the Law"
 - e. The Green Team (Brochure, Compost Lesson Plan, and Slash the Trash Lesson)

Banner:



Compost Monitor Medallion:



**Thank you for helping to
keep the compost clean!**



Please stand near the yellow barrel
to remind other students that:

1. Worms can eat all food including peels!

Dirty paper like napkins & empty paper bags are OK.

2. Worms cannot eat plastic!

No sporks, no straws, no wrappers, no plastic wrap,
no foil, and no packets. These go in the trash.

3. Liquids go in the bucket.

The custodian pours the liquid down the drain to
keep the compost and trash clean.

4. If trash goes in the compost...

Do not pick it out. The custodian will remove it later.



**Return this to the box
right before you leave the lunchroom.**

**Clean compost means
happy worms and farmers!**