Boston Latin School and Boston Arts Academy seek to work together to establish a successful composting program at their respective institutions. Every day, thousands of pounds of food scraps are thrown away in the garbage: a huge waste of both unused resources and nutrients that can potentially be recycled back into nature. We want to change that. In order to do so, however, we need much better signage to ensure that all the waste go into their proper bins, since contamination of any one would defeat the purpose of our waste reduction efforts.

Boston Latin School would also like to establish firmer control on its recycling program before we launch our new composting efforts. Recycling has actually become so popular that our recycling dumpster is constantly overflowing, even with a steady weekly pick-up. We’d like to purchase several paper compactors to help reduce a good fraction of the volume of recycling produced.

Statement of Need

Our aim is to initiate a composting pilot in Boston Latin School and Boston Arts Academy. On September 27th, 2012, BAA conducted a waste audit and found that their cafeteria annually produced 273.6 lbs of non-recyclables, 372.6 lbs of plastic, 2203.2 lbs of paper and other recyclables, and 4320 lbs of food scraps that are compostable. BAA is a very small school with only a little over 400 students enrolled. BLS’ student body is almost 6x that size and produces over 1000 lbs of food waste a week.
Boston Latin School has already initiated a number of sustainable projects in the school and composting is the next big step, because it will set an example for other Boston Public Schools, the majority of which already have zero-sort recycling thanks to our previous efforts. If we start to put composting bins into school, we can further reduce the amount of waste, and especially food waste in landfills. This is good because food waste makes up about 13% of all waste produced. After it enters landfills, it quickly rots and becomes methane, a poisonous gas that contributes to global warming with 21x the potential of carbon dioxide. Additionally, it is a waste to throw food away because they can potentially be recycled back into nature and provide other organisms nutrients.

Another problem is the need for better signage to promote the idea of sustainability and enforce more accurate recycling. Students tend to throw items in the recycling bin even when they don’t know if it’s recyclable or not, so many throw in things such as paper covered in wax or plastic, containers still contaminated with food, plastic film, Styrofoam, and especially tissues and paper towels, all of which are not recyclable. The most problematic is food ending up in the recycling bins, which contaminates our entire dumpster’s worth of recycling and most likely makes bin collectors choose not to recycle the products at all. They might also not recycle them if there are too many non-recyclables to separate which defeats the purpose of recycling and ruins our hard work.

In addition, aside from the school Dining Hall, the recycling program at Boston Latin School has become so profitable that there isn’t even enough space to store all of it! The recycling dumpster outside the school is constantly overflowing, but we’re unable to arrange more than one weekly pick-up from any hauler. Now that recycling has become such a norm at our school and everybody is participating, we need to find ways to reduce the volume of the recycling that’s collected. For this reason, we’d also like to divert some of the grant’s money into purchasing several paper compactors, or paper log makers. Before we add on composting, it would be beneficial to first get our recycling under better control.

Program Description

We have set up a collaboration between Boston Arts Academy and Boston Latin School to discuss environmental initiations that we can start with a main focus on setting up a composting pilot. Although composting bins cannot be placed into schools this year, we are rigorously preparing for and expecting them and want to get things started as soon as possible and continue to further reduce waste in schools.

First, we are designing and creating signage for the current bins we have because students often have confusion over where to throw their food. Currently, there are three types of bins; a blue one for trays, a green one for recyclables, and a gray one for trash. Tuyen and Victoria will work together to make signage for the different categories of bins that include pictures so that it will be more convenient for students who are in a rush to sort out their trash. This will reduce the amount of waste dumped into the wrong bin. Instead of being placed on the side of trash cans, which makes it harder for students to read
because of its low height, our new signs will be raised on a rod to a more appropriate eye-level and placed between trash cans so students could better notice and read them. They will be prepared digitally and printed at Kinkos by Ms. Arnold.

Additionally, Tuyen and Victoria will also be creating unique signs to hang on the walls that further create incentives for recycling. These signs will be moved around and replaced every few weeks to grab the students’ attention. Some of the signs will actually be made of recycled products (which we will advertise) to stimulate creativity in students and encourage them to reuse trash in their own ways as well.

To convert even more students to sustainability, Ms. Arnold has won a giant globe that will be placed in the library. Victoria has created a 18 foot banner that now forever hangs on the wall of the library. Every two weeks, Tuyen and Victoria will design a new banner to hang around the globe that has a catch phrase or a fun fact about sustainability. Because they are from different schools, Tuyen and Victoria will be visiting each others’ schools to discuss and work on large art projects at least once a week. If we are making digital designs, we will send each other our work through email for commentary.

All these posters/signage may potentially be sent to other schools so that they can be inspired to start their own recycling/composting pilots as well.

For the compactors, Flora will organize the overflow of volunteers who are a part of the Recycling Committee and YouthCAN at Boston Latin School (advantageous because it’s the much larger school) and can be diverted into a “compacting team.” Their job will be to compact one or two 92-gallon-bins’ worth of paper recycling into denser bricks twice a week (because that’s when the recycling around the entire school is normally collected by our volunteers), for starters. Since we usually receive about eighteen 92-gallon bins worth of recycling each week (and this isn’t even including the lunchroom’s recycling), reducing the loose recycling in two to four bins by about 90% with our compactors would be a dramatic improvement.

Goals

To measure our goals, we will create another waste audit at both schools in the winter and create one again in the spring to see if the amount of waste has been reduced because of the signage we put up, and if the weight of the recycling has increased inversely proportional to its volume reduction because of our compacting efforts. We will have quizzes and prizes at the end of the year to see if people remember the things we put on the banners on the globe, and we could also start to sell some of our compacted paper bricks as art materials as an ongoing fundraiser for the future.

Budget

1) Globe Banners: The cost of the 18 foot banner hung on the poster that Ms. Arnold printed at Kinkos.

    Total Cost: $369
2) **Signage for Bins:** there will be a sign for every 2-3 bins, depending on the number of bins we have in the school in each category. There are 3 separate category of bins and four stations in the BLS cafeteria that contains those bins. This will be about 6 signs per station x 4 stations, meaning a total of 24 signs. A square foot of printed paper is $3 at Kinkos. These signs will be 16” x 24”, which is 12 per poster.

   **Total Cost:** $288

3) **Art Supplies:** because posters at Kinkos can be pricey, students may have to resort to designing and creating the banners for the globe by hand. A new one will be hung on the globe routinely, every other Wednesday, starting the first week of December and lasting throughout the year. Students may need one 3ft by 1000 ft paper roll to create the banners, which costs $64.50 at Blicks. ZigPosterMan Biggie Markers are large markers that significantly speeds up the process of making the sign. A set of 3 costs $24.99 but individual colors cost $7.19 each. We might want to buy 3 more for variation of colors.

   **Total Cost:** $111.06

3) **Compactors/Log Makers:** we have more than enough student volunteers to assign a team of recycling compactors to compact one or two 92-gallon-bin's worth of recycling twice each week. A team usually consists of 8-10 people, and each would man one compactor, which costs about $22 from Amazon.com.

   **Total Cost:** $220

   **TOTAL:** $988.06

**Evaluation**

*(to be done after completion of project)*

**Appendix**

*(BAA's Composting Booklet)*
https://www.box.com/s/ajl7zia2o9mwrw6pc3jb

*(BLS Composting Initiative)*
http://blsyouthcan.org/BLS_Youth_C.A.N./Composting.html

*(Compactors/Paper Logs)*
http://woodstoves.newarchaeology.com/makelogs.php