



BUILDING BLOCKS FOR COMPOSTING WITH KIDS



STEPS TAKEN

This project began when I asked people in my network what areas of their life could be improved by sustainable design. My friend and my mom, who are both elementary school teachers, brought up how they'd like to compost at their schools. I decided to work with Sherwood Forest Elementary School, where my mom teaches (and where I went to elementary school!). They already had a compost tumbler but no one used it and it was difficult to turn or open.

When designing the new compost bin, I took these factors into consideration and made something that could be easily used by kids but would keep animals out; the school has woods nearby and raccoons have been spotted on campus in the past. First, I spoke with the principal and science teacher to get permission to start the project. I was surprised to hear how enthusiastic they were about getting the school to be more sustainable; it was like they had been waiting for someone to do this. The science teacher and I decided that the third graders would be the group designated to maintain the compost. They learn about plants that year, so she said they would plant two gardens, one with compost and one without, and compare the results. Using buckets we provide they will collect their class's food scraps at lunchtime and turn the compost periodically.

Next, I designed and built the compost bin with a few people I found who were willing to help. I added a latch and a small combination lock so it would be easy for kids to open but keep pests out.

Then I researched classroom resources for composting, how it can be explained to children, and determined what points to cover. I wrote the basic points to help them understand compost: what it is, why do it, what goes into it, and how it is maintained.

I then met with an illustrator and gave him an outline of the kinds of images I wanted. Over the next week he sent me drafts and we worked together until we were satisfied

with the results. After going to FedEx Kinko's and OfficeMax and finding out they would charge around \$400 to print the 120 books I needed for the students, I decided to print them at home and fold and staple them myself. This only cost about \$68, and took about a day to complete.

After that, a friend of mine translated the booklet's text into Spanish, and my mom translated it into Braille. I created a Spanish version with the translation my friend sent back, and up loaded that along with the Braille version to OER Commons.

We then bought buckets for the kids to use for collecting material for the compost. I found some big colorful metal buckets at Five Below for \$4.00 each and got one for each third grade class and one for the teacher's lounge. I put signs on these listing what can and can't be added to the compost. A copy that also provided the lock code was also placed on the compost bin. We also put fliers up at the school inviting anyone to help with the compost.

Finally, the three versions of the booklet, the general plan, and images of the compost bin's construction were uploaded to Open Educational Resource Commons.



BUDGET AND MATERIALS

- Buckets for collecting compost: \$4 each at Five Below
- Printing booklets: \$8 paper, \$60 ink at OfficeMax (printed on a home printer)
- Compost bin: ~\$100, materials from Lowe's
 - The compost bin we built was 4' long, 2' wide, and 2' deep, with 6" legs. We had most of the wood cut at Lowe's.
 - 3 pieces 12'x 4", cut into 6 pieces 4 feet long and 5 pieces 2 feet long, one of which was cut in half lengthwise for the center piece on the short sides
 - 2 pieces 8'x6"
 - 1 piece 6"x 8', cut into 4 pieces 2 feet long
 - 1 piece 4" x 12', cut into two 4 foot pieces and two 8 inch pieces
 - 1 piece 4" x 12', cut into four 4'6" pieces
 - 4 flat L-shaped corner brackets
 - 4 L brackets
 - 2 hinges
 - Roll of window screen



BUILDING STEPS

You will need: a drill, screws, a staple gun with staples

1. Screw the short side boards to the thin pieces
2. Attach the front and back boards to the thin pieces, making a rectangular frame
3. Attach the other 4 pieces (sides, front and back) to complete the frame
4. Measure the center of the thin pieces, and attach the 4' boards there on the front and back
5. Attach the 2' pieces that were cut lengthwise to the center of the sides
6. Using a staple gun, cover the inside of the frame with window screen
7. Line up the 6" wide boards on the bottom of the frame (turn the frame upside down so it's like a table) and screw them down to make the floor
8. Cover the bottom with window screen to catch any pieces that slip through the cracks
9. Attach the 4 legs to the outside of the corners. Use L-shaped brackets to secure the legs to the bottom of the bin
10. Turn right side up and lay the lid pieces to make a frame on top so they cover the sides without gaps
11. Attach these pieces with the corner brackets
12. Cover the middle of the frame with window screen
13. Attach the lid to the box with hinges
14. If desired, add a latch to keep the bin closed



By Audrey Hunt

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Illustrations used in this presentation by Cari Vander Yacht

