



<http://schools.spsd.sk.ca/brightwater/>

Brightwater Site

Waste Audit

When:

Morning of day three at camp

Groupings:

It works best with groupings of 10 or less; larger groups have a harder time sorting quickly through the garbage.

Time:

9:00 to 11:30 am on the last day of camp. There are three 45-minute periods of time to work with.

Materials:

Buckets	Clipboard
Weigh scale	Plastic sheet
Gloves	Compost Thermometer
Ice cream buckets	Pitch Fork (at Brightwater)
Bags of leaves	Calculator
Tables	Pencil
Audit charts	digital camera
Note pad	photographic permission slips
SWRC audit containers (plastic totes)	scale and recording charts
Mr. Clean or other disinfectant	
Cleaning rags	

Location:

Moose Jaw Hall. No sink available for wash up procedures. Bring mop pail with water, cleaner, and mop over from the kitchen storage room.

Setup:

Prior to the audit, during the camp, all of the camp garbage needs to be saved in the kitchen or by labeling the bags. Collect the kitchen and Somers Hall washroom garbage bags and take all to Moose Jaw hall. Also, bring over the saved compost (by kitchen sink) and recyclable materials from the back part of the kitchen.

When you get to Moose Jaw hall, move two long tables to the centre of the hall. Cover with the plastic sheet. Set the bins that have been labeled “SARCAN”, “Plastic”, “Metal”, “Paper”, “Garbage”, and “Compost” onto the two tables. Lay out the clean gloves in the size groupings on the tables. On another side table, place the weigh scale, waste audit sheet, pencil and the charts showing how to read the scale and record the weights. Set out chairs in the northeast corner of the building.

Procedures:

1. Separate the kitchen and bathroom garbage generated by the camp into two or three bags (enough for each session to sort a bag of garbage).
2. Welcome the students. Tell them to leave their footwear on because the work is messy. Record the names of the students on the audit sheet and the time that they worked.
3. When everyone is settled, introduce yourself and remind them of your visit to their classroom. Explain to the students that we will be sorting through the waste that is a history of their camp. Remind them that this is their waste and that they are continuing to manage it. Tell them that it will be stinky and messy, but reassure them that they can handle it and that it will be quite interesting. Tell them that waste can be placed into the garbage or recycled.
4. Take the students around to show them how the activity will work. First they will sort the material from the garbage bag into the bins. Although we are sorting it, it is still regarded as garbage because it was originally intended for the landfill. The work of sorting will show how materials could have been recycled.
5. Show the students the weigh scale. Remind them not to touch the scale until they need to weigh something that they need to keep their hands off the table until recording (because it changes the reading) and that they need to be gentle with it. Remember to record the weight of the bin in order to subtract it from the overall weight. Show the students how to record the information.
6. Have the students put on the rubber gloves. Take them to the garbage bag that is opened at the end of one table. The “Garbage” and “Compost” bins should be nearest this end of the table. Take out a piece of garbage and tell the students which

bin to place it into. They will catch on to this though some items will be trickier to sort. Have the students pick up one or two pieces of garbage and circulate around the table after dropping it into the appropriate bins. Each session should be able to sort one bag of garbage. As the session progresses, pull out groups of three students to review how to use the weigh scale. Show them how the weight varies between materials such as the compostable, recyclables and others that have already been removed from the landfill stream.

7. When the bag of garbage has been sorted, and as bins are being weighed, other students can be sweeping the floor and generally tidying the hall. Once everything is complete, we go onto the compost part of the program.

8. Try to make time for this part of the program since by making compost 1/3 of materials that are currently going to the landfill can be removed through composting. Make mini-composters with the students.

Students should still be wearing gloves. The centre two tables are cleared and the compostable material (one bucket per session) is placed in the centre of the tables. A bag of leaves should be on hand. Go through the basics of composting with the students.

- Compost is material that looks like soil, but is really a soil amendment adding nutrients and retaining moisture.
- Bacteria are the primary agents in making compost. Bacteria eat greens (fruit, veggies, grass, pasta, bread) which provide nitrogen to build proteins in their bodies. Browns (dried leaves, grass, wood chips) provide bacteria with carbon to give them energy to keep on eating.
- Compost needs greens and browns in a two to three ratio (two buckets of greens to three buckets of browns).
- Compost also needs oxygen. While mixing greens and browns, air is added to the pile. By adding water and a small amount of soil to the mixture, a bacterial community is started and satisfied, ready to start turning the material into black gold.

9. Have the students mix up compost in the pails. Before leaving the room to dump the mixture into the composter, the students should clean their gloves in the mop bucket, wipe them with the cleaning rags and set them out neatly for the next group of students.

11. Grab the compost pails and go to the compost bins with the group. Have some students grab the garbage bags that need to go to the garbage. The garbage trailer is by the compost bins, so it can be deposited on the way.

12. At the compost bins, show the students how they are set up. Explain again what goes into making compost and why it is important. Have the students dump their compost into the first bin, stir it and if available, add the water. Show them the finished or near finished compost at the bottom of the bin.

13. Ask the students if they have any questions about the session. Thank them and remind them to wash their hands and fingernails thoroughly since they were playing in the garbage.

For The Classroom:

When you have finished the waste audit, you will want to calculate the results of your study.

- a. Date, Supervising Teachers, Grade, # of Students, # of Adults
- b. Special Notes remarking on anything that might be unusual such as the amount of compostable, recyclables, parent's potluck night and such forth
- c. Total waste (recyclables, compostable and other)
- d. Average waste per person
- e. Total garbage
- f. Average garbage per person
- g. Total recyclables
- h. Average recyclables per person
- i. Place the results in a table to show the various categories and weight of the material in those categories. Why does compost seem to weigh so much more than some of the other items?