School Composting Options

Every school day each student generates about two pounds or more of compostable materials, such as food scraps and soiled paper. Composting these materials can help schools significantly reduce their waste. It is an activity that can be integrated into school curriculum, providing hands-on learning opportunities in science, math, and other disciplines. Composting is a natural “recycling” process that uses "decomposition" to break down organic waste—like food scraps, soiled paper, leaves, and grass. With the help of beneficial organisms, such as insects, worms, and bacteria, organic debris is "decomposed" to form a nutrient-rich soil enhancer.

Start-Up

Integrating food scrap collection into the cafeteria lunch room experience requires dedication and teamwork to ensure success and sustainability.

1. Form a Compost Team. Include representatives from administration, teachers, staff, parents, and students on the team and choose a coordinator. Decide on the student groups to be directly responsible for compost tasks. Will only classes in a specific grade be involved? Project-Based Learning students? Environmental Club? Honor Students? Perhaps a representative class or group from each grade level? Will classes or student groups rotate responsibilities or work together?

- Make sure there is enough student, teacher, staff, and administrator enthusiasm for composting in order for the project to be successful.
- Be sure to include the cafeteria and custodial staff from the start.
- Set a goal – such as, phased-in diversion of all food wastes from the school within a set period of time.

2. Conduct a school-wide cafeteria waste sort. The goal of the waste sort will be to determine estimated volumes and weights for each lunch period. Conduct three-to-five sorts – food scraps and soiled paper (vegetables, fruit, bread, cereal, napkins, paper bags, etc.); meat and dairy; recyclables, noncompostable wastes (plastics, straws, etc.) liquids (milk). Use separate bins to collect the materials; a bucket is best for liquids. Weigh each and record both volume and weight after each lunch period.

- Calculations from the waste sort can be used to determine the number of compost bins required to handle the volume of food wastes to be generated at the school.
- Alternatively, if the material is to be hauled to an off-site operation it will give the hauler an indication of the size bin (or number of carts) necessary to store the food scraps and collection frequency.
- Consult NERC’s Waste Assessment and Waste Audit Introduction Tip Sheet (http://www.nerc.org/documents/waste_assessments_and_waste_audits.pdf).

3. Choose a composting option. A suitable composting system depends on: available off-site services (both processing and hauling); available on-site composting area; amount of food and yard waste generated; student body size and age; concerns with bears or other issues for on-site composting; and labor needs and availability.

Options include:

- Utilizing an off-site compost facility (or animal feed or farm digester operation),
- Onsite school composting using outside compost bins or pile,
- Vermicomposting (worm composting), and
- In-vessel composting, using a commercial system.

Factors to consider when choosing a school compost system:

- Off-site composting options may be limited or hauling may not be available.
- On-site composting concerns - issues with bears or other critters.
- Custodial, parent, and student involvement? Is there enough dedication to manage an on-site composting operation?
- Consult other schools in the area or the local solid waste office to discuss options.

4. Formulate a budget. If material is to be composted off-site, hauling charges and container rental charges must be determined. On-site composting will require an initial investment in compost bins. Labor costs will vary depending upon the compost system and the availability of students to assist. Collection buckets, shovels, and other supplies will also be needed. Some materials can be obtained for little or no cost, such as 5-gallon buckets for food scrap collection. Sponsors or grant funding may be available for other supplies and equipment. If an off-site compost operation will be used, work with the hauler to provide discount rates, especially if it is the same hauler collecting the school's garbage and recyclables. Considering putting together a request for proposals to bid out services.

Diverting food scraps from trash to composting should significantly reduce the school's waste. While custodial involvement may be necessary in the compost operation, garbage handling will be reduced. Schools must be diligent about working with their trash hauler to cut back on the number of times the trash bin is hauled or reduce the size of the trash container. It may take awhile for schools to realize the full benefits of their efforts, but setting up a viable composting system will be an investment in the future. The benefits of composting for student instruction should also be considered. Also, finished compost can be used on school beautification projects, school gardens, soccer fields, or landscaping, thus saving the school money in purchases of outside compost.

5. Phase-in: To ensure success of school composting, make a plan to phase-in the program over the course of the school year (e.g., one lunch period at a time).

Collection of Food Waste for Composting, Livestock Feed, or Digester

Rural schools are often in an ideal situation to work with local farms or livestock operations to collect food scraps for composting, animal feed, or biofuel (digester) energy production.

1. Find a compost facility or farm. Check with local solid waste officials to see if they know of any compost operations in the area that may accept the school's food scraps. Ask the school's current recycling and/or waste hauler. Check on the Internet for farm listings; farm organizations, such as the Farm Bureau, state and regional agricultural agencies, soil conservation agencies, and farmer's markets associations, have lists of farms. Visit the "Find a Composter" Website (www.findacomposter.com). Look for farms that raise chickens or pigs, have horticultural or greenhouse operations, digesters for energy

production, or compost. Often organic farmers and livestock farmers compost their manures; they may be willing to add food scraps to their small compost operations. Petting zoos are also a possibility.

2. Initiate contact. Determine if the farm or operation is willing to accept food scraps from the school. It would be helpful to first do a basic cafeteria (and/or kitchen) waste audit to determine the approximate amount of food scraps that are generated.
3. Determine the materials to collect. Discuss acceptable materials with the farmer or compost operation. A commercial compost operation or digester can often accept soiled paper (such as napkins) and all food scraps, even meat. However, pig or livestock operations may only accept vegetable scraps.
4. Develop a collection plan. Involve the kitchen staff, custodial staff, and administration in the plan development.
   - Determine how the materials will get from the school to the farm or compost operation. Is there a local hauler that collects organics? Would the farmer be willing to collect the materials? Is there a parent volunteer who would transport the materials? Will the school's current trash or recycling hauler also haul the compost materials? Is there a cost for transporting the materials? Will the hauler provide storage containers?
   - Determine how the materials will be collected in the kitchen and cafeteria. Five gallon buckets with lids work well. Often these are available at no cost from restaurants or stores. Curbside bins or small trashcans, lined with compostable plastic bags, also work. Food waste is very heavy, so smaller containers work best, especially if students are involved with moving the materials from the cafeteria to a storage area. Bins for the kitchen need to be accessible, but out of the way.
   - How will the materials get from the kitchen/cafeteria to the storage area? A wagon, garden cart, or other type of cart on wheels will be necessary.
   - Determine how the materials will be stored after collection from the cafeteria and kitchen and prior to transporting them to the farm or compost operation. If materials are kept outside until collection, they must be secured from animal intrusion. Odors might be an issue if the materials are stored inside for longer than a couple days. Adjust transportation to meet the storage availability and to avoid critter or odor concerns.

5. Start small. Implement the collection first with the kitchen staff. Set up buckets or bins into which the kitchen staff can toss food preparation scraps. Label the bin with a sign that has the acceptable materials listed. Conduct a training for the staff. Decide how the materials will be transferred from the kitchen to the collection bin or storage area for transportation to the compost operation.
6. Expand the system to student lunches. Phase in the collection one lunch period or one grade at a time. Solicit student volunteers to monitor the cafeteria food scrap collection. Have at least one monitor to stand by the collection bin to assist younger students and ensure that all students know how to participate. Develop easy to read signage (with pictures) to place on collection bins.

7. Monitor and promote the program. Get volumes or weights from the hauler or processor and publicize these in school announcements, newsletters, the school Website, and local media. Talk with the compost processor to ensure that the collected materials are not contaminated with unwanted items. Work out any collection issues—is the storage area adequate; is collection running smoothly, etc.

On-Site Composting of Food Waste

Composting food waste on school grounds requires dedication and long-term commitment for maintenance of the compost site. Additionally, rural schools have the added concern of bears and other critters (see below).

1. Find a convenient outdoor location that can be a permanent composting site. Dimensions of ten feet by ten feet work well, depending on the number of students participating. Smaller areas will work fine for classroom projects and small schools. A program in which the whole student body is participating from a larger school may require more space.

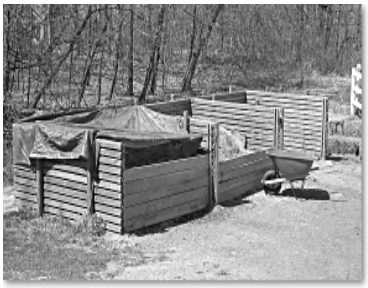
- Water should be accessible. A bucket/watering can will work; a hose is best.
- The area should be slightly sloped to allow for drainage. If the compost area is flat, drainage holes or channels can be dug around the compost bin or pile. An area that gets some sun is preferable.
- The compost area should be away from school buildings, residences, and businesses, as well as streams, ponds, wetlands, and wells. Close proximity to the cafeteria will allow for easier transport of collected food waste to the compost area.
  - Do not pile compost right next to a wood fence or building, as it can rot the wood or discolor the building.
  - Try not to place bins on concrete or asphalt; this inhibits the work of soil microorganisms and prevents proper aeration and drainage (soil or grass is best).
  - Try to avoid setting up the compost area near pine trees (the needles are acidic).
- Nearby vehicle access is helpful so that compost bins and extra compost materials (e.g., leaves) can be easily brought to the compost site.
- A school garden area is an ideal location.
- Before deciding on a compost area, be sure to discuss it with school officials, custodians, food service staff, teachers (especially physical education), and even neighbors, if appropriate. This will help ensure that the compost area is not in the way of normal school activities.

2. Determine other available materials for successful composting. Proper composting requires enough leaves or other carbon sources for a 60:40 ratio of carbon to nitrogen. In other words, about 2/3 of the compost pile will need to be leaves or carbon sources.

- Before collecting food scraps, begin gathering leaves, dried grass, straw, and other carbon ("brown") materials. Distribute a message to teachers, parents, and area residents asking for leaves to be brought to the school. Designate a convenient drop-off location. Decide how materials will get from the drop-off location to the compost area. Can grass and leaves generated on campus be brought to the compost area?
- Prepare a storage spot in the compost area. Consider piling materials or building an inexpensive wire fenced area. It is best not to keep leaves in plastic bags.
- Carbon materials are bulky, so plan for proper storage and maintenance of the area to prevent unsightliness. Consider mowing leaves to reduce bulkiness.
- Are other sources of carbon available if needed – animal bedding, old straw or hay, or shredded paper?

3. Decide how to contain the compost. The type and number of compost bins to be used will be determined by the volume of food scraps and soiled paper generated in the school cafeteria. *Remember*—for every bucket of food scraps, you will be adding two buckets of leaves or carbon materials. At least two bins are recommended. The first bin can be filled all the way, closed off, and allowed to "cook" to make compost, while the second bin is then utilized for new materials. Multiple bins will be necessary for larger schools.

- Commercial "home compost bins" can be use. Check with the local solid waste office to see if they sell them. Most garden supply stores also carry bins.
- If bins are to be constructed, a decision will need to be made as to who will make the bins (maybe a parent volunteer) and how materials will be obtained. Each compost bin should be at least 3 feet x 3 feet x 3 feet, in order for proper composting to occur. Consider how materials will be turned. If a small bucket loader is available, construct the opening of the bins wide enough to fit the loader. There are numerous ways to construct compost bins from pallets and used wood. Instructions can be found on the Internet, or contact NERC.



- Talk with a local home improvement store or garden center about sponsoring the compost site by donating materials or compost bins, in exchange for signage and promotion.
- *Pile or Windrow*: Schools with sufficient volumes of compostable materials and available land can consider composting materials in a pile or "windrow" (an elongated pile) without a bin. This type of system can present challenges to manage and must be done in a location away from the school and public view. The area should be large enough to hold one or more piles that should be at least 3 feet x 3 feet x 3 feet. Plan for enough room to maneuver in order to turn the piles manually or using a tractor. Start with a layer of wood chips or sawdust, on the bottom, if available. If not, put down a layer of straw or leaves. To limit the frequency of turning, a perforated pipe can be placed on the bottom as well to help provide aeration into the pile. Always cover food scraps with leaves or other carbon materials. Water as necessary. Additional instructions can be found on the Internet, or contact NERC staff.

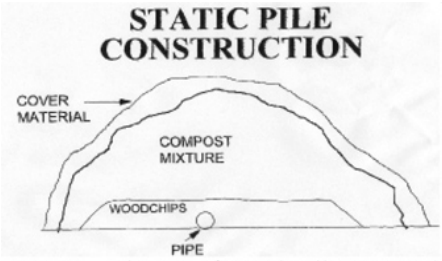


Figure 1. Diagram of a static pile construction with a perforated pipe insert.

4. Cover the bin or pile. Have a plastic tarp to cover the bin (or pile) in the winter and during heavy rains. Purchased compost bins come with a lid for cover.

5. Equipment/supplies. A shovel and/or pitch fork for loading materials into the bins, turning, and aerating the materials will be necessary. Schools that are making compost piles or windrows can use a small tractor with a bucket to easily turn the materials and shape the piles.

6. Collection. Determine how the materials will be collected in the kitchen and cafeteria. Five-gallon buckets with lids work well; often these are available at no cost from restaurants or stores. Curbside bins or small trashcans also work. Small carts on wheels can be tilted for

emptying at the compost site. Food waste is very heavy, so smaller containers work best, especially if students are involved with moving the materials from the cafeteria to the compost site.

7. Transporting to the materials. Determine how the materials will be transported from the kitchen/cafeteria to the compost area. A wagon, four-wheel garden or utility cart, or recycling cart on wheels can be used.

8. Compost tasks. Assign project tasks, develop a schedule, and train students and staff in ongoing composting tasks.

- Review all tasks with students/staff participating in the project–from material collection and monitoring, to bin/pile maintenance. Discuss the composting process and the importance of proper maintenance. Review proper attire for composting participants and regularly remind participants of proper hygiene (e.g., wearing gloves and washing hands).
- Develop a schedule of tasks and assign students (and/or others) to complete each task. This will ensure that everything gets done without overburdening one or two individuals with all of the work. Rotate tasks so that experiences can be shared. Have teachers/custodians/parents also rotate coordination/supervision functions so that project "burn out" can be avoided.
- Cafeteria Monitors: Primary duty is to ensure that only compostable food waste and soiled paper are collected. Monitors assist younger students in sorting their compostable scraps into the collection bin and help older students learn what is acceptable and not acceptable.
- Equipment use:
  - If students are to be responsible for moving the materials from the cafeteria to the compost site, they must be instructed in proper lifting/hauling techniques for transporting the full compost collection containers to the compost area.
  - All students involved in the project need to know how to safely handle shovels and other tools used in composting. Instruct on the proper way to hold and use shovels to mix the food waste with the carbon materials, load the materials into compost bins, and turn the composting materials. Also, review the proper method of aerating the compost. Show students how to use a compost thermometer, if appropriate.
- Remember, start small and phase-in changes to the program. *Be flexible!* The program may need to be adjusted or modified.

9. Compost Ingredients

The macro-and-microorganisms in a compost pile need nutrients, vitamins and minerals just as we do to stay healthy, grow and reproduce.

- *Nitrogen ("green") nutrients*: "Wet" green materials such as kitchen preparation scraps and cafeteria wastes (cereal, vegetable and fruit scraps, coffee grounds, napkins, etc.), fresh grass clippings, and manure.
- *Carbon ("brown") nutrients*: "Dry" woody, “bulking” materials such as soiled paper, fallen leaves, dry grass, brush clippings, hay or straw, dry weeds, wood ash, sawdust, newspaper, and coffee filters.

- *Create a "nutrient stew"*: A well balanced compost recipe includes approximately 1/3 high-nitrogen containing material and 2/3 high-carbon containing material (by volume).
- *A little soil*: Sprinkle a handful of soil or finished compost over the food scraps to inoculate the compost ingredients with microorganisms necessary in the composting process. When removing finished compost from the bin, always be sure to leave a layer of it in the bin for "culture."
- *Ensure sufficient moisture*: School food scraps are often pretty moist. If not, add water or leave the bin or pile uncovered if it is going to rain. The composting materials should be uniformly moist like a damp sponge throughout the bin or pile.
- *Air*: Microorganisms need plenty of air to work and decompose the collected compost materials. Aerate the compost by poking it or "fluffing" it with a pitch fork. Aerating the pile each time materials are added provides oxygen to the decomposers and helps them to break down materials more rapidly.
- *Keep materials small*:
  - Paper bags, if composted, should also be shredded (by hand is fine). Napkins and paper towels do not need shredding.
  - Shred or chop large debris pieces, including branches or cornstalks, into half-inch to one-inch pieces before placement in the compost bin. If possible, mow over leaves.

Meat, Cheese, Creamy Sauces

Typically it is NOT advisable to include meats and cheeses in on-site school compost systems. These are slower to degrade, can cause odors, and attract rodents.

- From the cafeteria waste audit, determine the approximate amount of meats and cheeses disposed.
- If small amounts are generated, this would probably be okay to include in the compost system.
- Consider disposing of meats and cheese as trash initially. And, then adding these into the compost system at a later date.
- Pizza with cheese, cheese sandwiches, and small amounts of cheese, meats, and cream sauce that end up in the compost will be okay.

10. Mix it up!

- Start with high-carbon ingredients; follow with high-nitrogen materials. Next, sprinkle on a thin layer of soil or "finished compost" and a little water—then mix well! Do not compact materials in the pile or bin. Keeping compost ingredients loose allows more oxygen to circulate through the materials.
- Turn the composting material once a week or so to speed the composting process. This allows more air to filter through the pile or bin and exposes more material to the pile's feeding organisms. It may be easiest for students to mix materials on the ground first, and then shovel them into the bin.
- After several weeks, a good mixing of materials inside the bin/pile as new materials are added should be adequate, without a full turning. However, if the compost is not heating up or odor problems arise, the materials may need to be removed from the bin and turned. Compost piles (without a bin for containment) may need to be turned more often to maintain active composting.

11. It's hot!

- Properly working compost becomes very hot in the middle because of all the biological activity going on inside. Normal temperatures will range from 120° to 160°F. Do not be

alarmed! When the microorganisms eat and decompose material, they generate energy in the form of heat. As the organisms feed, the mass of composting materials becomes smaller and begins to look like soil.

- If a pile or bin is higher than four feet or if you want to make your compost more quickly, purchase a compost thermometer for monitoring the temperature of the pile. Thermometers can be found at garden supply stores.

Bears and other critters

Rodents and other small animals, as well as bears (if they frequent the area near the school) may be attracted to a school composting site. Precautions can be taken to reduce the likelihood of animals being attracted to the site, *but no method will keep bears away from compost bins if they are determined.*

- Make sure the compost area is a good distance from trash cans and school dumpsters. Trash cans and dumpsters can attract rodents and bears.
- DO NOT add meat, fish, dairy, or grease to the compost bins. If compost bins are in a school garden, consider only composting garden materials, such as clippings.
- Reduce odors in the compost bin by thoroughly mixing food scraps with leaves and dried grass, and then covering with soil or finished compost and a thin layer of lime (available at garden centers). Keep the lime in a covered bucket near the compost bin; use a scoop to handle the lime.
- Rodents will be attracted to the compost bins for their warmth, as well as the food. Limit rodent access by digging an area around the bin and placing quarter-inch chicken wire under and around the base of the bin.
- The only way to really reduce a bear risk is to enclose the bins in a fenced area or sturdy shed that bears cannot penetrate.

How many compost bins?

Conversions for determining compost bin size:
50 pounds = 15 gallons
100 pounds = 30 gallons
200 pounds = 60 gallons

If your school generates about 50 pounds of food waste per week, this is equal to approximately 15 gallons. Add at least double the amount of brown "bulky" materials (dry grass, leaves, etc.) to calculate your total gallons-per-week figure.

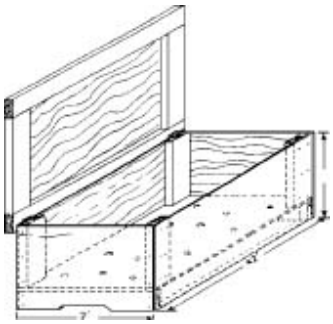
- 15 gallons of food waste + 30 gallons of brown materials = 45 gallons total.
- There are 7.5 gallons in one cubic foot. So,
- 45 gallons divided by 7.5 = about 6 cubic feet.

A constructed bin with the dimensions of 3' x 3' x 3' will give you 27 cubic feet of space. Thus, in approximately four weeks the bin will be filled. A new bin can then be started, or the composted materials can be removed from the original bin and set aside in a pile to finish composting.

Worm Composting

Worm composting or "vermicomposting" is a process that uses worms to convert organic material into a dark rich soil amendment. Worm castings can be used in gardens, outdoor landscaping, and indoor plants. A worm composting bin in the classroom offers an exciting demonstration of ecology and recycling in action. Worms are amazing and fascinating creatures--they can daily consume their own weight in organic material and leave behind the richest and most productive soil known. Larger outside bins can be built for composting cafeteria food scraps. These bins provide an excellent means of composting, eliminate most odor issues, and provide an opportunity for students to sell or market the worms and worm castings. Schools may find it beneficial to do a combination of both regular on-site school composting and worm composting.

- Classroom Worm Bin: A 7- to14-gallon plastic bin (colored, not clear or see-through), with holes drilled approximately every 2 inches around the bin and the lid, with a few on the bottom (a 3/8 inch drill bit works best).
- Outside Worm Bin: A wooden bin approximately 1.5 feet high x 2 feet long x 3.5 ft wide is a good size. If the entire school's food scraps are to be collected and fed to the worms, several bins will likely need to be constructed. Make two or three rows of quarter-inch holes on all sides for air, plus drain holes near the bottom. Worm bins can also be built into the ground using scrap lumber or cinder blocks. Outside worm bins will need to be insulated from both the heat and the cold. Consult NERC for worm bin construction and insulation information.



- Worm Bedding: Enough torn cardboard to fill the bin about half-way full, loose and dry. Shredded cardboard should be 1-2 inches in size.
    - Also needed—garden soil (not potting soil), finished compost, or sand, about one cup per bin.
    - Worms need soil or sand to aid in their digestion.
    - Also have a crushed egg shell (empty of contents).
- Moisture: Water and a spray bottle (like the kind used for plants), as well as a bucket or tub will be needed. Worms must be kept moist at all times. All areas of the worm bin and bedding should be kept moist. Water should not puddle in the bin, however.
    - Worms breathe through their skin and require moisture to do this….if they are not kept moist, they die! However, if soaking in water they will drown.
- The Worms: Approximately ¼ to ½ pound of red wigglers ("Eisenia foetida") worms—about 300-500 worms per bin (twice this number for larger bins).
    - Worms can be purchased off the Internet (search under "red wigglers" or worms for composting") or from a reputable fish bait store (make sure the worms are alive and healthy).
- Additional equipment: A three-pronged hand fork or trowel.
- Setting up the Bin: Soak the cardboard in water for several hours or overnight in a bucket. Drain the cardboard, place it in the worm bin and mix in the soil or sand, and egg shell. The cardboard should be thoroughly moistened, like a damp sponge, but water should not pool in the bin.

- Put the worms into their new home.
  - → Wait to feed the worms a few days, they will start eating the paper bedding and get used to their new home.
  - → If indoors, keep the lid ajar and a light on at night for the first few days so the worms do not migrate (out of the bin).
- Temperature: Ideal wormy temperatures are between 55° and 80°F. Do not put the bin near a heat source. Do not place the bins outdoors unless properly insulated.
- Worm Food: Worms will eat virtually any type of grains, vegetable, and fruit scraps (although they're a little slow with unshredded carrots!).
  - It is recommended that fruit not be fed to the worms in classroom worm bins because this may cause fruit flies to hatch in the bin (the fruit fly eggs come on the peels of all kinds of fruits, especially banana peels, apples, and tomatoes).
  - Raw vegetables are best, although occasional cooked vegetables are okay. Do not feed vegetables that have been heavily salted, spiced, or cooked with meat.
  - Stale and slightly moldy bread, brown lettuce, greens, cabbage leaves, and other items "left over" from the cafeteria or kitchen refrigerator are good food sources for the worms and will help keep these wastes out of the landfill.
  - Egg shells are an important source of calcium carbonate, a substance necessary for worm reproduction, so add a couple each week. Keep part of the shell whole for the worms to crawl into, they may lay eggs in them.
  - Coffee grounds, paper filters, and tea bags can be added to the worm bin a few times each week (these are acidic, so do not add them everyday).

Commercial In-vessel Composting Units

Institutional, "high-tech" type in-vessel composting units are available from several manufacturers. These containers are suitable for larger schools or school complexes. The in-vessel structure helps to alleviate pest, critter, and odor issues. All food scraps and other organic materials are placed in a self-contained, enclosed unit. Simpler units are turned by hand; more mechanical units require electricity for turning the materials. Typically any kind of food scrap can be composted in these containers, including meat and cheese scraps, as well as soiled paper. Units vary in size from 3.5 cubic yards to 200 tons/day or more. Costs for the units typically start around $2,000 for smaller vessels.

Earth Tub

School Composting Resources

- School Composting Guide – www.ct.gov/dep/lib/dep/compost/compost_pdf/schmanual.pdf
- Educational materials on composting – www.howtocompost.org/cat_education.asp
- Microbe Zoo – Fun resource on microbes in our world: www.commtechlab.msu.edu/sites/dlc-me/zoo/zdmain.html
- Cornell Composting in Schools – http://compost.css.cornell.edu/schools.html
- Life Lab Science Program – Various soil and garden resources: www.lifelab.org
- Living with Bears and Other Predators Guide and Resources: www.lwwf.org/Living%20with%20Predators_resource_guides.htm
- Worms.com – Worm guide: www.worms.com/worm-pdfs/whats%20vermicomposting.pdf
- Worm World – Fun worm facts and videos: www.yucky.discovery.com/flash/worm/
- Worms and worm composting resources: www.wormwoman.com
- National Institute of Environmental Health Sciences: www.kids.niehs.nih.gov/worms.htm
- How Stuff Works: www.home.howstuffworks.com/vermicomposting.htm
- National Gardening Association: www.kidsgardening.com
- Eugene Public Schools In-vessel Composting Program: www.darkwing.uoregon.edu/~recycle/PDFdocuments/EarthTub.pdf
- Seattle Public Schools In-Vessel Composting Program: www.your.kingcounty.gov/solidwaste/garbage-recycling/documents/Onsite_food_pilot_final-report.pdf

NERC's Rural School Waste Reduction, Recycling, and Composting Tip Sheets, Case Studies, and Webinar Presentations are available for free download (http://www.nerc.org/documents/#SchoolWaste).

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