

Common School Recycling Questions

Mixed Recycling

Anything that you put in the mixed recycling at home can go in the mixed recycling at school. Having mixed recycling available throughout the school is a requirement of becoming an Oregon Green School.

Everything else below is not a requirement of becoming certified as an Oregon Green School. I can get you signs, posters or stickers to help you clearly identify your recycling bins.

Things collected separately at home

Things that are collected separately from the mixed recycling at home in Marion County (i.e. batteries, paint, cooking oil, anti-freeze, glass, motor oil, etc.) are also recyclable but will take some additional planning. We can work out a way for you to get any of these items collected. Batteries & glass seem most relevant.

Recyclables that require a bit more effort

Batteries

We can give you buckets & signage to collect batteries. You would just need a way of letting the students, staff & especially parents know that there is a place to bring them. This could be the main office, entrance hallway to the school, wherever you set up a school recycling area for the "special" recyclables, your classroom, the library, or wherever makes sense for your school.

Plastic bags and shrink wrap from supplies & kitchen

Plastic bags and wraps are more challenging to recycle at this time because it would require that you regularly bring them to a grocery store and that you make special arrangements to do so.

Cell phones, printer cartridges & other small electronics

We can set up an easy way for you to collect cell phones and printer cartridges. These would require you to find a centralized area to collect them that everyone knows about. We'll provide the collection boxes. When they fill up, simply put a pre-paid shipping label on them & call Fed-Ex for a pick up. If you go through the County's program, and funds will go towards the Oregon Green Schools Association. If you want to keep the funds for your school, that's fine too and I would just need to help you set up an account. I'd estimate that a school might make \$50/year with cell phones and printer cartridges programs.

Milk Cartons

In short, they are garbage in Marion County. Almost every time I go to a school, I'm asked about the recyclability of milk cartons. The best option is to avoid them altogether by using a milk dispenser & washable cups although there can be a lot of obstacles to implementing this. If you would like more information about milk dispensers, please contact [Bailey Payne](#) (503) 365-3191.

Unfortunately, milk cartons are very difficult to recycle and are no longer collected by the recycling companies. Most of the Salem-Keizer School District schools have had milk carton recycling programs in the past but they required a considerable amount of effort. These schools had to drain them, dry them, and then collect them separately. When the cartons were eventually taken to a paper mill, they often ended up becoming garbage for the paper mills to deal with.

The paper fiber is of high quality but they are covered in polyethylene plastic and a chemical ("wet strength") which makes them difficult to turn back into paper fibers. As a result, they don't pulp at the same rate as the other paper being recycled and end up getting screened out as garbage. The industry is working on improving the recyclability of these cartons so hopefully this will eventually change. There are some paper mills that are able to process them but they are prohibitively expensive to ship across the country or internationally.

Styrofoam

Styrofoam trays, cups, egg cartons, take-out cartons, and meat trays are not recyclable in our area and need to go in the trash. If your school uses Styrofoam trays, you can save space in your dumpster by stacking them at lunch. This doesn't do anything for recycling but could save you money in disposal costs. Free block Styrofoam is recyclable but it must be taken to the Fresh Start Market (3020 Center St. NE, Salem, OR). I can help facilitate the collection (but not transportation) of Styrofoam. Marion County may have funding to purchase durable/washable trays and utensils. For more information, contact [Bailey Payne](#) (503) 365-3191.

Cafeteria "Boats"

Most trays (aka boats) that I've seen have a thin layer of plastic which makes them unrecyclable and not compostable. It's easy enough to replace them with ones that don't have the plastic liner, whether or not they are able to be composted depends on how your school manages food waste. See below for more information. If your school uses Styrofoam trays or "boats", you can reduce your use of them by 20% by adopting a "Trayless Tuesday" program. Schools that do this work with the cafeteria to come up with meals that do not require trays one day a week. Here is a link with more information:

<http://www.cafeteriaculture.org/trayless-tuesdays.html>

Composting

Food is one of the largest sources of garbage in schools. In fact, it's the biggest source of garbage in Marion County, accounting for approximately 20% of our garbage. While it's possible to set up a program to recover much of the food waste that your school generates, I strongly recommend that you first focus on establishing a solid recycling and waste reduction program before taking on a composting program. Schools that have composting programs have taken different approaches. Here are some pro's and con's to composting at school:

On-site Composting: This can be a great way to involve students and teach them about composting and all its benefits, particularly if you have a school garden. If you go this route, let me know so I can get you some free composters and let you know about the possibility of free compost & wood chips. I also have curriculum and worm composting information/materials I can give you.

Composting with the School's Garbage Hauler: In Salem and Keizer this is an option, however there are challenges. As the rates are currently structured, it is more expensive for a school to compost through their garbage/recycling hauler than to throw it away as food. I can work with you to help estimate what this additional cost will mean in your school's circumstances if you want to pursue this. As with recycling, contamination is also a problem. Nobody wants compost that has plastic forks, straws, etc. While "compostable" plates, utensils, bags, and cups are available, the composters do not want them

and will throw them away as garbage. These “compostable” products do not decompose quickly enough at commercial compost facilities and certainly not in school compost piles. Having the composting handled through your hauler is more convenient than composting it on-site and much more material (i.e. meat, bread, yogurt, etc.) can be composted which makes the collection process in your cafeteria/staff break room much easier because you don’t have to distinguish between non-animal products & other food that is compostable in your school composters.

A Bit More Background on Food:

There are many reasons that wasting food is problematic. Food accounts for roughly 20% (by weight) of everything that we throw away in Marion County and schools typically throw away more food per capita than most businesses. Of the food bought in the United States, it is estimated that 40% ends up getting thrown away. This is especially sad in a state like Oregon which has one of the nation's highest rates of hunger. Also, the environmental impacts associated with food production such as fertilizer, pesticide and herbicide application, water use, and transporting and processing food happen before the food ever reaches our plates so when we waste food, we not only have the "downstream" issues of what to do with it, but have already incurred "upstream" environmental impacts.

Once food becomes waste, it can be taken to a commercial composting facility and turned into a valuable soil amendment. Compost has several environmental benefits, including improved soil tilth, improved nutrient & water storage, erosion prevention, disease resistance, bioremediation and decreased need for pesticides, herbicides and fertilizers. Unfortunately, a lot of food waste ends up in the garbage and the benefits of turning it into compost are wasted. Once it arrives at the waste-to-energy facility in Brooks, it is burned with virtually no environmental impacts in regards to air emissions. However, because food waste is wet, it is relatively inefficient to burn. Worse yet, if food waste ends up at a landfill, it becomes one of the main contributors to creating an anaerobic environment. A by-product of anaerobic decay is methane, a greenhouse gas which is 30 times more potent than carbon dioxide. While some landfills contain methane capture systems, they only capture 80% of the methane generated so food waste is directly responsible for the foul odors & global warming associated with landfills. The high moisture content also contributes greatly to the leachate which seeps out of landfills so it must also be managed at a considerable expense.

Bottles/cans

Some schools set up recycling programs for bottles & cans with deposit value. Some collect them internally within the school and others have programs for families & the community. There are some challenges to setting up a program but this can become a valuable fund-raiser for your school. If you want to set up this type of program, please let me know and I can give you pointers.

Art projects

Paper that has crayon, painting or marker drawings aren’t a serious source of contamination, but their recyclability is somewhat questionable. The wax from paper that has been covered with crayon likely does not break down/recycled at the paper mill so it’s best to put it in the garbage. Paper with glitter is also better to put in the garbage. Construction paper, bright paper, and post-it notes are all fine.

Reuse Box

Some schools set up a box for collecting things that people no longer want. Students, staff, and parents are then welcome to take whatever they can use. You could keep it simple by limiting it to school supplies. If you feel more ambitious, you could open it up to other things, like toys, clothes,

music, sporting equipment, etc. If your box begins to overflow, you'd need to arrange to take it to a Goodwill or some other thrift store.

Fluorescent Lights

CFLs contain very little mercury and none is released when the bulb is in use and intact. Most CFLs contain only 5 milligrams of mercury; compare that to the 500 milligrams of mercury that are used in traditional thermometers. When the bulb burns out the best environmental choice is to recycle it at a Home Depot or Lowes store or to bring up to 10 fluorescent bulbs to the Salem-Keizer Recycling & Transfer Station.

Even though fluorescent lights contain only a small amount of mercury, they need to be handled carefully because the mercury becomes airborne if the bulb is broken so for the safety of your students and custodians, it's important that they not be thrown in the garbage.

Nearly half of Oregon's power comes from coal burning energy facilities which release mercury into the atmosphere. The US EPA estimates that a coal power plant will emit 10mg of mercury to generate the electricity needed to run a conventional incandescent bulb compared to the 2.4mg a coal power plant emits to run a CFL for the same time. Bottom line? Although fluorescent lights contain a small amount of mercury, they actually reduce the amount of mercury in the environment because they save so much energy if they are recycled.

Pizza Boxes

Being made of cardboard, pizza boxes are definitely recyclable - BUT- the problem is the grease/cheese. The best option is to tear off any parts that have grease/cheese and recycle the rest of the box. In cities with yard debris service, the best option is to throw the soiled parts of the box in the compost and the rest in the recycling. If a yard debris bin isn't available, the soiled parts of the box should go in the trash and the rest should be recycled. Here is an excerpt from [an article](#) that does a good job explaining the technical reasons that the cheese and grease cause problems:

When paper products, like cardboard, are recycled, they are mixed with water and turned into a slurry. Since we all know water and oil don't mix, the issue is clear. Grease from pizza boxes causes oil to form at the top of the slurry, and paper fibers cannot separate from oils during the pulping process. Essentially, this contaminant causes the entire batch to be ruined. This is the reason that other food related items are non-recyclable (used paper plates, used napkins, used paper towels, etc).

The oil and grease cause great problems for the quality of the paper, especially the binding of the fibers. It puts in contaminants, so when they do squeeze the water out, it has spots and holes."

But what about other things regularly found on paper products, like ink? Most inks are not petroleum-based so they break down fast. Food is a big problem. Also, be mindful of adhesives that may be on the pizza box (coupons, stickers, etc.) as those are contaminants. Known as "pressure sensitive adhesives (PSAs)" these can ruin the recycling process just as much as oil or food remains.

[TerraCycle](#)

TerraCycle is a non-profit organization from Colorado that finds creative ways to recycle materials that are otherwise unrecyclable garbage. Some materials that they have collection programs for are [free](#) while others cost money. Some schools have programs in place to collect juice pouches, candy/chip wrappers and more although some cost money and finding available space in a school can be difficult.