

Compost Correctly at School

Teacher Resources Guide



Summary: Currently 16 schools in Gresham divert the weight of almost 17 African Elephants of food waste per school year from the landfill through the City of Gresham's Plate to Power Program. That waste is converted into compost and electricity which powers homes right here in Oregon, rather than emitting methane, which is one of the strongest greenhouse gasses, and contributes to climate change. Your assistance in educating our students on waste reduction helps schools reduce their environmental footprint, save money, and practice leadership in our community. This guide will familiarize you with what goes where, and provide you with helpful teaching tools.

What goes in each bin of your school recycling stations?

Your school's Plate to Power recycle station may look a little different, but here are the main elements:

	Small Bucket	Drying Rack / Bin	Grey/Black Bin	Green Bin	Clear Stream
Cafeteria					
	Liquids	Milk Cartons	Trash <i>food soiled paper, plastic packaging</i>	Food Scraps	Mixed Recycling

What happens to these materials?

Your custodian takes out the food scraps bin and puts the materials in a separate "Food Only" roll cart or dumpster. The materials are picked up by a waste hauler and driven to a transfer station where they are combined with food from other schools and businesses in the region. These loads are driven by tractor-trailer to an anaerobic digestion facility in Junction City, OR. The waste is put into a large holding tank, and as it breaks down, the gasses emitted are compressed into liquefied natural gas. That gas is burned in an engine powering a turbine, which creates electricity. The solids left behind are then aerobically composted. This compost is used on local farms to improve their soil's fertility.



1 JC BioMethane – where food becomes electricity and compost

What Teaching Tools are Available? All can be found here: <https://greshamoregon.gov/platetopower/>



Video (5 mins)



Video Notes Sheet



Matching Game



Get the Word out to the Whole School

Plate to Power Facts

The nutrients in food help us grow. The nutrients don't leave uneaten food, they are transformed into the nutrients in compost to help new plants grow, which makes new food. That's a **life cycle!**



The average school throws away almost the same amount of food in one year as the weight of a full grown **African Elephant!**



JC Biomethane, where some of the Portland Metro area's food waste goes to generates enough electricity from the region's food waste to **power 1,500 homes!**

Recycling Facts



Recycling one aluminum can saves enough energy to power a laptop for 5 hours.

More than half of all waste generated in the Portland Metro area does not go to the landfill! The Metro Area's diversion rate (recycling + composting) is **60%**. The national rate is close to 30%. The highest rates in the country are around 75%.

Reduce is the strongest of the 4R's (Reduce, Reuse, Recycle and Rot). They are all helpful in decreasing the amount of things we waste. But, reducing is the strongest, because it helps us avoid waste in the first place.

Thought Provoking Questions

Each day students throw out a large amount of food that is completely uneaten. What might be some ways to reduce this?

What are some things that you reuse daily in your own life? What are some things you could start reusing?

Why would you choose to reduce waste? What do you appreciate about nature?

What Students Can Do:

Recycle / Compost Correctly

Help Monitor your Cafeteria Waste Station

Make Posters, Videos, or Announcements to Educate Fellow Students and Staff

Practice Reduce and Reuse More Often