

Building Soil		Grade 3 Understanding Earth and Space Systems: Soils in the Environment	
Lesson Plan		Safety Notes	Wash hands after handling household waste.
Description Students will play a sorting game and learn about composting. They will also learn how building soil is a nature-based solution for climate change.			
Materials <ul style="list-style-type: none"> ● One day’s worth of the student’s household waste ● Three containers to sort waste into 			
Science Background Soil is important for living things, for example, most of our food grows in soil. We can have a positive impact on soil and climate change by composting our household waste. Organic materials (ones that were once alive) can be degraded, or broken down, into a uniform and stable substance called compost. Degraded organic material like compost is an important part of healthy soil that can support plant and animal life. Composting can be done on a large-scale where your town or city collects your waste, or it can be done in a backyard, or even in your home with a worm composter. Meats and fats should not be added to a backyard or worm composter. Organic material is mostly carbon (we are carbon-based life forms!) and proper composting keeps the carbon from being released into the atmosphere as carbon dioxide (CO ₂). That is good because carbon dioxide is a heat-trapping gas responsible for global warming and climate change.			
Activity Procedure Gather one day’s worth of your household waste and sort it into three containers - one for composting, one for recycling, and one for garbage or landfill. Follow the sorting rules for the place where you live. Answer the questions on the handout. You will need to do some research to answer the last question.			
Debrief In Sudbury, Ontario, a study found that 30% of household waste can be composted. That is a lot of waste! When waste is composted instead of going to a landfill, more of the carbon in it is trapped and does not get released into the atmosphere. Composting has a positive impact by helping to build soil, which is important to many living things, and it is a nature-based solution to climate change!			

Handout

1. How do you know if something is compostable?

Generally, if something was alive once, it can be composted.

2. When should paper be composted?

If it is wet or dirty.

3. Estimate the percentage of your household waste that could be composted. Do you think it is close to 30%?

Yes, it is about 30%

4. Do some research! Does your town or city have a composting program? If so, what do they accept?

Differs from place to place. Generally, diapers and pet waste are not accepted. Fun fact for teachers: in some cities Tim Horten's cups are compostable!