

# CLASSROOM WASTE AUDIT & SORTING ACTIVITY

### **Purpose**

The purpose of this classroom waste audit is threefold:

- 1. To make students aware of the kinds of waste they typically produce in school, largely from snacks and lunches brought from home;
- 2. To teach students how to properly sort waste into trash, recycling and compost bins; and
- 3. To engage students in a discussion about ways to reduce plastic waste by replacing singleuse items and packaging with reusable alternatives.

This protocol is designed as a short classroom activity requiring minimal preparation. Simply take a few minutes to skim the following pages and grab the supplies listed, then gather your students for a hands-on waste analysis activity.

The goal is to get the conversation about waste started using real data that reveal how we are actually behaving on a typical day when it comes to trash. Your students will learn about data collection as you take steps together to set new habits that will help reduce waste.

### **Supplies**

- Tongs
- Garbage can
- Recycling bin
- Compost bucket
- White board and at least 3 white board markers

### Activity: Let's Talk Trash

Our classroom has recycling bins and garbage cans. Today we're going to see how well our class is doing getting waste into the correct bins. We'll see how well we're doing now and then we'll check again in the future to see if we have improved.

We have two goals. One goal is to produce as little waste as possible. The second goal is to make sure we know what items belong in the recycling or compost bins so that they don't end up in the trash can. We also want to make sure that trash doesn't end up in the compost or recycling bins. By doing these things we will ultimately use fewer resources, have less trash to deal with (for example, by burying in landfills), and reduce litter. Working on these goals will help make the Earth a more sustainable place to live for people and for wildlife.

One of the types of waste we will keep track of today is single-use plastic. When people talk about single-use plastics they are talking about plastic items that just get used one time before they are thrown in the trash or recycling. Kind of wasteful, right? Fifty years ago most things were made of paper, cloth, leather or metal. More and more things are now made of plastic. Plastics last a very long time, and if they end up in the environment they can cause problems for animals that might eat or get tangled up in plastic trash.

Raise your hand if you can think of an example of a single-use plastic item. *Or quickly list some* of the following if the students don't come up with them.

- straws
- ziplock bags
- plastic spoons and forks
- single-serve water bottles
- juice pouches
- snack wrappers

- yogurt and apple sauce containers
- plastic bags
- cling wrap
- ketchup/mustard/mayonnaise packets
- coffee stir sticks

## Waste tally and sorting activity

Now we are ready to see how our recycling program is going. We are going to describe and count all the items I found in the classroom recycling bin.

I need three volunteers. (Choose three students and hand them each a white board marker.)

- 1. One person will tally the number of single-use plastic items.
- 2. One person will tally the number of things that should have gone in the trash can instead of the recycling.
- 3. The third person will tally the number of items that should have gone in the compost bin instead of the recycling.

Draw a quick data table on the white board with headers for single-use plastics, trash and compost.

Everyone else has a job too. Each time I use the tongs to hold up an item I found in our recycling bin, you tell us whether it is a single-use plastic and whether it is recyclable, trash, or compost. Ready?

Start pulling things out of the recycling. Give your volunteers time to tally when needed. Stop and discuss any questions that come up about where to put things. Drop any items that should not have gone into the recycling into the trash can or compost bucket. You might need an area to put things you have questions about if you're not sure what can be recycled in your area.

#### How's the Recycling Bin?

Single-Use Plastics	Trash	Compost
(# of single-use plastic	(# of items that should	(# of items that should
items)	have gone in trash can)	have gone in compost bin)

Now that we've checked the recycling bins we're going to see if what we put in our trash can is really trash. We need three new volunteers to help us tally the things in our trash can.

Draw another data table on the board and assign each of your volunteers a category to tally.

#### What's in the Trash?

Single-Use Plastics	Recyclable	Compost
(# of single-use plastic	(# of items that should	(# of items that should
items)	have gone in recycling)	have gone in compost bin)

*Discuss the data*: How did we do? Were the majority of items made of plastics? Are most of the single-use plastic items we found recyclable? Did they end up in the correct bin?

### Questions for discussion

#### What are some problems with single-use plastics?

- Many of them are not recyclable.
- If they get into the environment they can hurt animals that try to eat them or that get tangled up in them.
- Most plastics are made from fossil fuels, which are a non-renewable resource.

- Even if they go in the recycling bin, the process of recycling plastics requires energy.
- People in the United States use much more plastic than we recycle. A lot of recyclable plastic is ending up buried in landfills, where it will sit for years to decades or longer.

#### How can we reduce the amount of single-use items we use and reduce waste?

Single-use item	Alternative (to reduce overall waste)
Plastic wrappers from granola bars, snacks, etc.	Pack a snack of mixed nuts, dried fruit, or fresh fruit or veggies in a reusable container. This may help you eat healthier foods too.
Single-serve plastic containers from yogurt, applesauce, etc.	Buy a large container of yogurt or applesauce and put small amounts in reusable containers each day to reduce packaging waste.
Plastic forks and spoons	Pack reusable utensils (metal, plastic, bamboo) and wash them at home.
Plastic drink containers	Bring a reusable water bottle.
Plastic bags and plastic cling wrap	Use a reusable container (a glass jar, plastic snap-top bowl, beeswax sandwich wrapper, paper wrapper, etc.).
Paper napkins	Bring a cloth napkin.

Each of you is now a Garbage Guardian! It is your job to help your friends, teachers, and parents put things in the right bin and avoid making unnecessary trash whenever possible. We'll surprise you with another check of our recycling and trash bins sometime soon to measure our progress. We're all going to work together to keep the Earth healthy and a sustainable place for us to live. Thank you!

Follow the same protocol in the same location at a future date and compare results.

This activity was adapted from an original version developed and generously shared by Dr. Sarah Bryant.



