

**BECOME A**  
**WASTE**  
**HERO**

**REDUCE TO ZERO**



# My Waste Audit

Level 3 Advanced Lesson






# Lesson Prep & Curriculum Alignment

Prep time: 10 – 15 minutes

Students will consider how much waste they personally and as a class generate each day, and the portion that is recyclable and non-recyclable by conducting a “waste audit” at home. They will analyze their personal contribution to the waste stream and develop ideas on how they can reduce the amount of waste they make. Using the data collected from their waste audits, students will calculate the amount of recyclable and non-recyclable material they produce in a day.

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- 1 Display the lesson slides for the class and create a discussion about what they already know about recycling and introduce the concept of an audit.
  - 2 Print out the “YES/NO” handout and the “Waste Audit Form” handout.
  - 3 Prepare a standard home scale to weigh items students will bring to class.

# Lesson Prep & Curriculum Alignment

Prep time: 10 – 15 minutes

## Key Learning Outcomes and Curriculum Alignment:

- **Science - Earth and Human Activity:** Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. Things that people do can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things.
- **English Language Arts and Literacy:** Participate in collaborative conversations with diverse partners about topics and texts. Follow agreed-upon rules for discussions. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
- **Mathematics:** Make sense of problems and persevere to make sense of them by counting and multiplying to reach a conclusion on the quantity of something.

## SDG Alignment



## Flexible and adaptive lesson

Lesson plans are designed to be flexible and responsive to the evolving needs of your classroom. Lessons are editable and customizable to meet the different individual student and classroom contexts. A PowerPoint version with teacher instructions and a printable PDF lesson are available for download.



# The Lesson

Lesson duration: 25 - 30 minutes

- 1** Assess students' understanding of recycling, its benefits, and the impact on the environment by not recycling. Display the “YES/NO”, “1,2,3 Steps”, and “Best Practices” slides to assess their understanding of how to effectively recycle and how much waste we produce each day.
- 2** Display the lesson slides and introduce the concept of the waste stream through a guided discussion about the flow of our waste.
- 3** Introduce the concept of an audit and tell students they are going to conduct a one-day waste audit at home to find out:
  - how much their family recycles?
  - how much trash they produce?
  - how much of the trash they produce could be recycled?
- 4** Depending on your school’s current recycling practices, you might wish to discuss the possibility of sharing their findings with the school and starting or improving a recycling program.

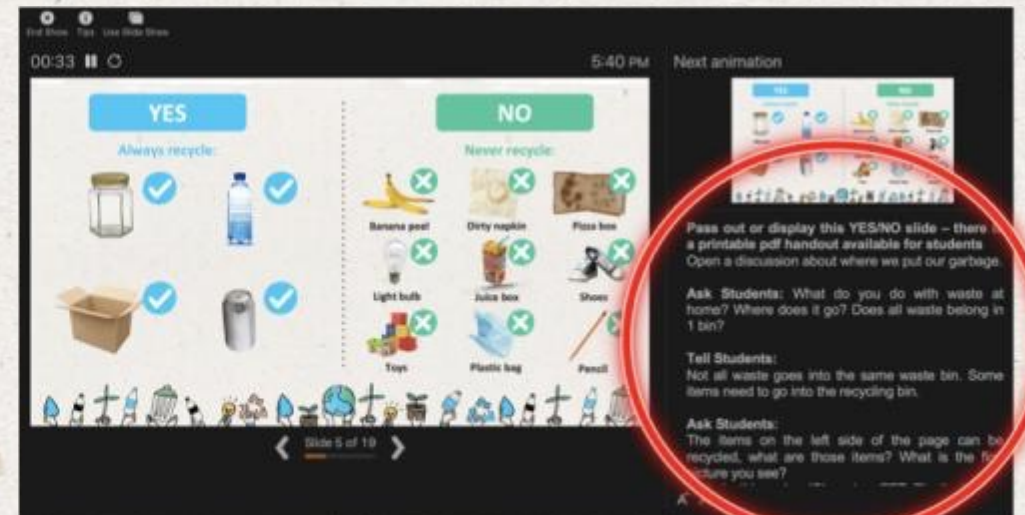


# Prepare the PowerPoint presentation

When you are ready to present the lessons to your class click on **Slide Show** on the top menu bar then select **Presenter View**. In Presenter view, you can see your notes as you present while the audience see only your slides.



The notes appear in a pane on the right. The text should wrap automatically, and a vertical scroll bar appears if necessary. You can also change the size of the text in the Notes pane by using the two buttons at the lower left corner of the Notes pane.







Glass jar



PET Plastic bottle



Shoes



Metal can



Light bulb



Juice box



Dirty napkin



Pencil



Plastic bag



Toys



Cardboard box



Garden hose



Banana peel

YES

NO





# YES

Always recycle:



Glass jar



PET Plastic bottle



Cardboard box



Metal can

# NO

Never recycle:



Banana peel



Dirty napkin



Garden hose



Light bulb



Juice box



Shoes



Toys



Plastic bag



Pencil





# How do we prevent waste leakage into our environment?

## Practice The 3 Steps to Recycling

1 Know what you can recycle.



2 Empty, clean, and dry before putting in the bin.



3 Put recyclables into the correct recycling bin.





# What is your Waste Hero's Message to Inform and Inspire?

## Recycling Best Practices & Tips



Separate combined materials



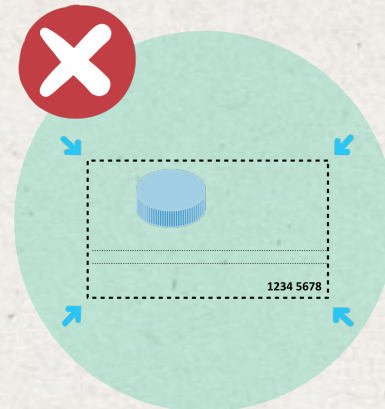
Keep your recyclables dry – less than a teaspoon of liquid



If your recycling container smells, it is contaminated



If you can poke your finger through it, do not recycle it



Never recycle anything smaller than an ID card





# How much waste does the average person create each day?



4 bundles of bananas  
= 4.5lbs/2kg



2 full rotisserie chickens  
= 4.5lbs/2kg



Sack of potatoes =  
4.5lbs/2kg



Small dog = 4.5lbs/2kg





# What is the waste stream?

1

We clean, separate, and place our recyclables at home and at school for pick up.





# What is the waste stream?

2

**Recycling trucks** pick up and deliver your recyclables and drop them off at the recycling facility.





# What is the waste stream?

3

Assembly line workers hand separate all the items delivered. They remove any food, plastic bags and other items that do not belong.





# What is the waste stream?

4

Machines use high technology to further sort and separate paper, cardboard, plastic and metal.





# What is the waste stream?

5

Once these 4 materials are properly separated, the items are flattened and packed into bales. Bales look like giant blocks of recyclables.



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# What is the waste stream?

6

These bales of recyclable material are **sold to companies** who will process these materials into new products.





# Class Activity: 1 Day Waste Audit





# What is an audit?





# Steps for the **1** Day Home Audit



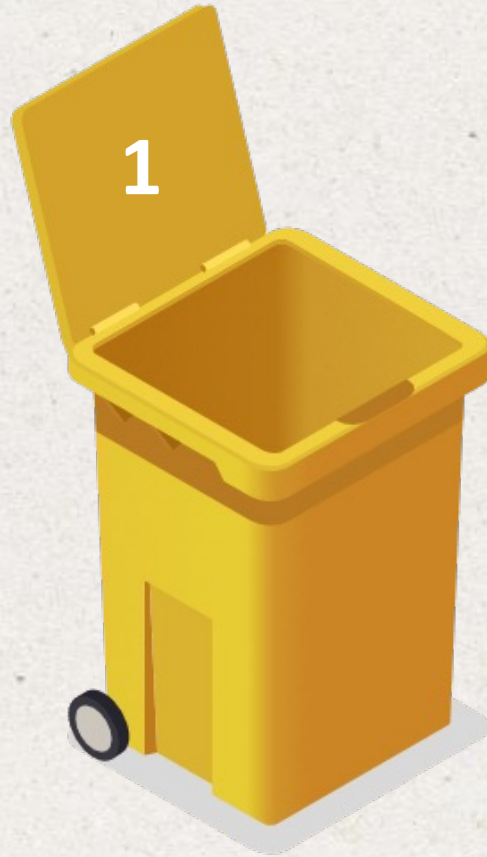


# Step

1

Check with your parents to pick a day for the home waste audit. The day of the audit, make sure to **choose 2 containers for non-recyclable waste and recyclable waste**, and make sure both are empty before you begin.

**Non-recyclable  
Waste**



**Recyclable  
Waste**





Step

2

After collecting the last bit of waste, set out **three trash bags** to sort the three types of waste collected: (1) Recycling, (2) Food Waste, (3) Non-recyclable items. **Wear protective gloves!**

Food waste bag

Recycling bag

Non-recyclable bag





# Step

# 3

As you carefully go through the waste containers separating your waste into the three bags, record on your **“Waste Audit Form”** the individual recyclable items you collect and how many.

## Waste Audit Form

RECYCLABLE ITEM	TOTAL ITEMS	APPROXIMATE WEIGHT PER ITEM	TOTAL WEIGHT
<b>Paper</b>			
<b>Cardboard</b>			
<b>Metal</b>			
<b>PET Plastic</b>			
<b>Total</b>			

NON-RECYCLABLE	WEIGHT OF BAG
Food waste bag	
Food waste bag (If needed)	
Other trash	
Other trash (If needed)	
Did you find any recyclables in these bags?	
1. 4.	
2. 5.	
3. 6.	
<b>Total:</b>	





# Step

# 4

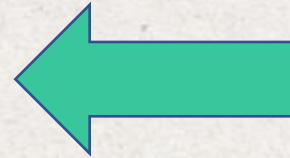
Bring your three bags to school. Using a **standard scale**, record the weight of each individual recyclable and the total weight of each of the three bags.

## Waste Audit Form

RECYCLABLE ITEM	TOTAL ITEMS	APPROXIMATE WEIGHT PER ITEM	TOTAL WEIGHT
Paper			
Cardboard			
Metal			
PET Plastic			
<b>Total</b>			

NON-RECYCLABLE	WEIGHT OF BAG
Food waste bag	
Food waste bag (If needed)	
Other trash	
Other trash (If needed)	
Did you find any recyclables in these bags? 1. 4. 2. 5. 3. 6.	
<b>Total:</b>	

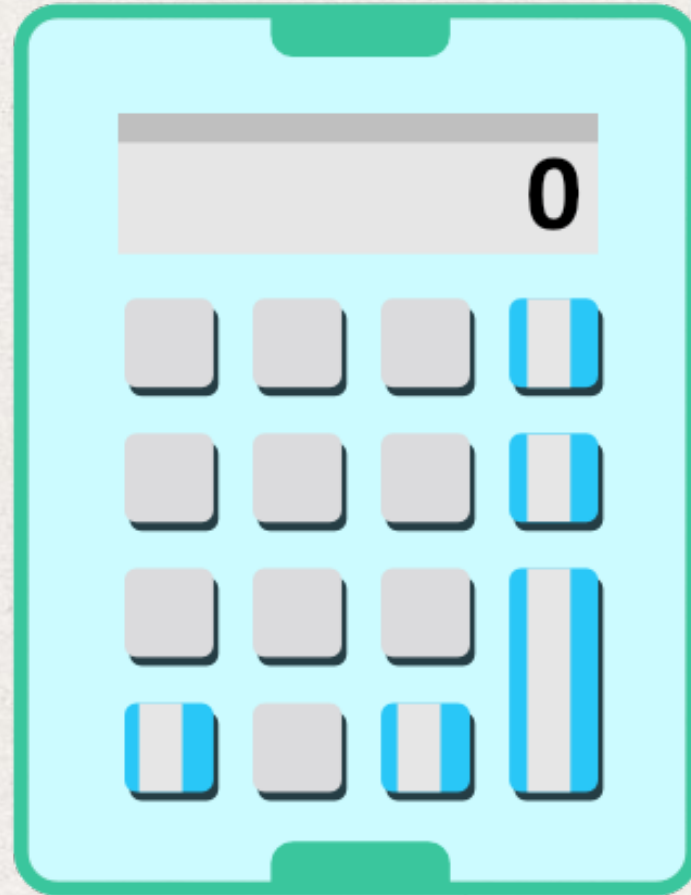




Step

5

How much total waste did the class create? Now calculate how much total waste you are likely to create in a week (7 days), a month (30 days), and a year (365 days).



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# Waste Audit Form

RECYCLABLE ITEM	TOTAL ITEMS	APPROXIMATE WEIGHT PER ITEM	TOTAL WEIGHT
<b>Paper</b>			
<b>Cardboard</b>			
<b>Metal</b>			
<b>PET Plastic</b>			
<b>Total</b>			

NON-RECYCLABLE	WEIGHT OF BAG
Food waste bag	
Food waste bag (if needed)	
Other trash	
Other trash (if needed)	
Did you find any recyclables in these bags? 1. 4. 2. 5. 3. 6.	
<b>Total:</b>	