

# Activity: School waste survey

In this activity, pupils look at how much waste is generated in school.

They log the items in each bin before categorising and collating their findings to find out how much is produced overall.

## You will need:

- The following items (or images of them): paper, cardboard, clingfilm, picture of a cigarette butt, plastic carrier bag, glitter, glossy wrapping paper, tin can, aluminium can, crisp packet, plastic drink bottle, glass bottle, plastic milk carton, TetraPak carton, piece of food (e.g. fruit), single-use face mask
- [Type of material signs](#)
- [Timeline labels](#)
- [Survey form](#) for each group
- [Waste Funnel](#) image

Make sure you carry out a risk assessment of the audit and that all pupils have appropriate supervision and safety equipment.

## What to do

### Practise categorising materials

1. Put all the items listed in a pile. Arrange 6 pupils in a line and give each one a different [material sign](#).
2. One at a time, ask other pupils to select an item from the pile and place it in front of the correct sign.
3. Once all the items have been sorted, reveal the [answers](#). Were there any surprises?



The ocean is warming and becoming more acidic as a result of increased carbon dioxide in the atmosphere.

Reducing carbon emissions will help stop the problems from getting worse.

# Activity:

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### How long does it take to break down in the ocean?

1. Explore how long it takes for litter in the ocean to break down.
2. Ask 6 pupils to make a timeline holding the [timeline labels](#) and pick out the food, paper, cardboard, crisp packet, plastic carrier bag, drinks can, plastic drinks bottle and glass bottle.
3. Give each item to a different pupil and ask them to place it next to the time they think it will take for the item to breakdown. Confirm the correct answers (see [answer sheet](#)).
4. Look at the items. Which of them can be reused? Which are single use and are designed to be used only once? Discuss how long the items are used for compared with how long they will last on earth.

### How much do we throw away in school?

1. In a staff meeting, agree the day or days when pupils will record waste. A [tally chart](#) is used because the aim is to get a sense of overall volumes and splits between the different types of waste, rather than exact quantities.
2. You can manage the safety of the activity by either having an adult accompany pupils to each room when they record the waste, or ask the member of staff to stay in their classroom or office and help pupils record it.
3. For the canteen, position pupils next to the bins at lunchtime to record how many times each type of waste is thrown away. Catering staff could log their waste, collect their waste for pupils to categorise or work with pupils to log it.
4. For the playground, before and after school and at breaks, position pupils next to bins to record what's thrown away.
5. If you run breakfast or after school clubs, you could ask staff to record the waste generated there.

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## Collating the results

1. Add up the results for each category to find out how much of each type is thrown away.
2. Calculate average daily and weekly totals and extrapolate the figures to estimate total annual waste. You could split the totals into landfill and recyclable to help pupils consider what waste is recoverable.
3. As a class, identify the most common types of waste. Why were they used? How much of what was put in the bin could be recycled?



As waste in landfill decomposes, it releases carbon dioxide and methane, contributing to climate change

## Reducing waste

1. Discuss the impact of waste on climate change. As waste in landfill decomposes, it generates carbon dioxide and methane, gases that contribute to climate change. Reducing the amount of waste will help to combat climate change.
2. Display the [Waste Funnel](#). Explain that the funnel is designed to show importance and impact, with the actions that make the most difference placed at the top. If we follow the 3Rs – Rethink, Refuse and Reduce – we help reduce the amount of products being made, reducing carbon emissions from the manufacturing and supply processes.
3. Can pupils think of ways to Rethink, Refuse and Reduce waste in school?

Read on to find out how you can prepare for Step 3.

# Activity:

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### Preparing for Step 3 (continued)

In Step 3 you'll carry out an action project to fight climate change, and this could be to eliminate 3 types of landfill waste from school.

You can carry out this project in the way that best suits your school's circumstances. Our pupil [workbook for reducing school waste](#) sets out one possible approach.

If you choose to do this, prepare by looking back at the survey results. Create a table and write down items commonly thrown away in school in the left column. As a class, think of ways the school could prevent the item going to landfill. Could they Refuse an item and use a non-waste or lower waste alternative? For example, could you replace single-use plastic milk bottles with washable cups and lids and large cartons of milk. Should more Recycling take place?

Landfill waste item	How could we eliminate this waste?

The aim of your project is to persuade your school's management to eliminate 3 types of landfill waste from school. You could let pupils choose the waste items by holding a class vote, or it might be better for you to choose the plastic items using your knowledge of what will be most achievable.

Pupils will work in small groups to create persuasive arguments to present to your school's decision makers. For simplicity, the workbook focuses on persuading your headteacher, but it's likely that others will need to be convinced too, like your school business manager.

# Paper

# Cardboard

# Plastic

# Food

# Metal

# Glass

**A few  
months**

**2 to 5  
years**

**75**  
**years**

**250**  
**years**

**450**  
**years**

**800**  
**years**

**800**  
**years**

# Answer sheet

## Materials

### **Paper**

- Paper
- Cardboard

### **Glass**

- Glass bottle

### **Metal**

- Tin can
- Aluminium can

### **Food**

- Piece of food e.g. fruit

### **Plastic**

- Clingfilm
- Cigarette butt
- Plastic carrier bag
- Glitter
- Glossy wrapping paper
- Crisp packet
- Plastic drink bottle
- Plastic milk carton
- TetraPak carton
- Single-use face mask
- Reusable plastic objects e.g. lunchbox, toy

## Litter Timeline

- Food waste – a few months
- Paper – a few months
- Cardboard – 2 to 5 years
- Crisp packet – 75 years
- Plastic carrier bag – 250 years
- Aluminium can – 450 years
- Plastic drinks bottle – at least 800 years
- Glass – at least 800 years

The timings for plastic and glass are estimates, as these materials never completely disappear but break down into smaller and smaller pieces.

# School waste tally chart

Use this tally chart to record how many of each type of waste is thrown away or recycled each day at your location.

Name:

Location of bin:

Type of waste	Day 1	Day 2	Day 3	Day 4	Day 5
Cardboard					
Food					
Glass					
Metal					
Paper					
Plastic					
Other					

# Waste Funnel

Reducing our waste means less landfill/ incineration and less litter



MARINE  
CONSERVATION  
SOCIETY