

Activity:

School plastic waste survey

In this activity, pupils look at how much plastic waste is thrown away in school. They log the single-use plastic items in each bin before 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), wooden item, woollen item, disposable face mask
- [Plastic and Not Plastic signs](#)
- [Litter timeline cards](#)
- [Survey form](#) for each group

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

What to do

Can your pupils spot plastic in everyday items?

1. Put all the items in a pile. Place the [Plastic sign](#) to one side of the pile, and the [Not Plastic](#) sign to the other.
2. One at a time, ask pupils to select an item and place it in the 'plastic' or 'not plastic' pile. Once all the items have been sorted, reveal the answers. Were there any surprises?
3. Look at the items in the 'plastic' pile. Which of the items can be reused? Which are 'single-use' and are designed to be used only once?



Most of the litter in the ocean is plastic.

We can help the plastic pollution problem by reducing our plastic use.

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

1. Ask 6 pupils to make a timeline holding the [cards](#).
2. Pick out the food, cardboard, crisp packet, plastic carrier bag, drinks can, and plastic drinks bottle.
3. Give each item to a different pupil and ask them to place the item next to the time they think it will take for the item to degrade. Confirm the correct answers (see [answer sheet](#)).
4. Ask the pupils with the plastic items to step forward. There's a twist – the time given is the time it takes for the item to break *up*. The plastic will never actually leave the planet, but breaks into smaller and smaller pieces. Look at the plastic items and discuss how long the items are used for compared with how long they will last on Earth.



Plastic never leaves the planet. It breaks up into smaller and smaller pieces but never goes away.

How much single-use plastic is thrown away?

1. In a staff meeting, agree the day or days when pupils will record the plastic waste using the [survey form](#).
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 lunch time to record what is thrown away. Ask catering staff to either save their packaging to be recorded by pupils 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 the plastic thrown away.
5. If you run breakfast or after-school clubs, you could ask staff to record the plastic waste.

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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 find annual totals to find out how much single-use plastic is thrown away in school each day, week and year.
3. As a class, discuss where the most packaging was thrown away. What are the most common types of plastic packaging? What properties of plastic mean it is used for packaging? Could other material be used instead?
4. Show pupils the [Waste Funnel](#). The actions that make the most difference are at the top of the funnel (refuse, reuse). Can pupils think of ways they could reuse one of the plastic items thrown away? Can they think of how to refuse a plastic item?

Preparing for Step 3

In Step 3 you'll carry out an action project to help clean up our seas.

For your project, you could choose to try to eliminate 3 types of single-use plastic from school. Pupils would work together to compose arguments to persuade your school's senior management team to ban the items.

If you choose to do this, prepare by looking back at the survey results. Create a table and write down the 5 most frequently found items in the left column.

As a class, think of ways the school could 'Refuse' each item and use an alternative. Note these in the right column. Do pupils have ideas for other single-use plastic that could be refused, e.g. glitter or glue? Add them to the list.

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Plastic item	What could we use instead?

The aim of your action project will be to persuade your school's management to eliminate 3 types of single-use plastic from school. You can carry out the project in the way that best suits your school's circumstances. We've created a [Workbook to reduce single-use plastic at school](#) showing one possible approach.

When choosing the 3 single-use plastic items you would like to try to eliminate from school, you could let pupils decide by holding a class vote. If this isn't practical, it might be better for you to choose the plastic items, using your knowledge of what might be most achievable.

For simplicity, the workbook focuses on persuading your head teacher but it's likely that others will need to be convinced too e.g. the school business manager.

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Why is single-use plastic a problem?

Plastic is incredibly useful – flexible, lightweight, durable and hygienic – but it lasts forever.

It doesn't biodegrade, but breaks down into smaller and smaller pieces. Too much plastic has short-term uses but long-term impacts on the planet. Did you know that 80% of the litter in the ocean is plastic?

How does plastic reach the ocean from the land?

- Littered – When people drop litter it can be washed or blown into drains and rivers and from there, travel to the sea.
- Left on beaches – Rubbish that is left on a beach can be washed directly into the sea and items placed into an overflowing bin can be blown into the sea.
- Blown from refuse trucks or off landfill sites – Plastic put in the bin ends up in landfill. Because it's light it can be blown into drains and rivers and into the sea.

What about recycling?

The government's statistics on waste in 2020 showed that only 47% of household plastic packaging was recycled.

Not everyone recycles (only about half of UK households), not all plastics can be recycled, and even plastic put into recycling bins may not be recycled due to problems experienced in the recycling process.

Solutions

No matter where you live, the plastic you throw away could end up in the sea.

Reducing plastic use is the only way to prevent it from ending up in our ocean.

Answer sheet

Plastic or not

Not plastic:

- Paper
- Cardboard
- Glass bottle
- Tin can
- Aluminium can
- Piece of food e.g. fruit
- Item made of wood
- Item made of wool

Plastic:

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

11 million tonnes of plastic ends up in the ocean worldwide each year. That's about a full rubbish truck every minute!

Single-use plastic

- Cling film
- Cigarette butt
- Plastic carrier bag
- Glitter
- Glossy wrapping paper
- Crisp packet
- Plastic drink bottle
- Plastic milk carton
- TetraPak carton
- Disposable face mask

Litter timeline

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

The timings for plastic items are estimates, as it hasn't been around long enough for us to be certain, and plastic never fully disappears.

Plastic

**Not
plastic**

**A few
months**

**2 to 5
years**

75

years

250
years

450
years

800

years

Plastic waste tally chart

Name: _____

Please record how many of each type of single-use plastic item you throw away or recycle each day.

<i>Item</i>	<i>Day 1</i>	<i>Day 2</i>	<i>Day 3</i>	<i>Day 4</i>	<i>Day 5</i>
Plastic bottle					
Plastic pot					
Plastic tray/punnet					
TetraPak carton					
Crisp/snack packets					
Plastic bags (all sizes)					
Bubble wrap					
Plastic film/lids					
Blister packs					
Plastic pouches/sachets					
Frozen food bags					
Cheese wrap					
Plastic gloves or mask					
Foam or polystyrene					
Plastic tubes, sprays					
Other					

Waste Funnel

Reducing our waste means less landfill/ incineration and less litter



MARINE
CONSERVATION
SOCIETY