

## Session Leader Notes

# Part 1: Introduction to waste

This lesson plan is designed to provide Key Stage 3-4 students with an in-depth understanding of how to correctly dispose of waste, touching on the environmental impacts if done incorrectly and practical strategies for reducing and managing waste in their daily lives.

### Recommended for:

Key stage 3-4 (Ages 11-16)

### Session duration:

60 Minutes

## Objectives

**By the end of this lesson, students will:**

1. Understand what waste is and its environmental impact.
2. Learn about the different bins you have at home and the types of waste that go into each.
3. Learn how waste is managed (e.g., recycling, composting, incineration, landfill).
4. Recognise the importance of reducing, reusing, and recycling to improve waste management systems and protect the environment.
5. Explore strategies to minimise waste at home, school, and in everyday life.

## Recommended group rules

- Listen to each other.
- Treat each other with respect.
- Engage with and enjoy the learning.

## Materials (what you need)

- **Provide at the start of the lesson:** Whiteboard and markers for answering questions.
- **For slide 20:** Waste Picture Sheets and Waste Info sheets (keep hold of these to refer to in all 5 lessons), Coloured bins or bins labeled: "Recycling Blue," "Compost Brown," and "General Waste Black Bin", Assorted waste items (paper, plastic bottles, cardboard, food scraps, etc.).
- **For Slide 22:** The 3 Rs handout (keep hold of this to refer to in all 5 lessons).
- **For Slide 24 (Extra Activity that could be done as homework):** Paper for drawing or making posters.

## Technical requirements

- A good standard of audio and visual for the group size for the short video on slide 8.

## Lesson Outlines

# Part 1: Introduction to waste

## 1. Introduction to waste (10 minutes)

### Start with a question:

"What happens when we throw something away?"

"Where does it go?"

"Is there a process and how does it affect the environment?"

### Ask these questions before clicking onto the next slide.

- Briefly introduce the concept of waste. Ask, What happens when we throw something away?, Highlight that waste is anything we discard because it is no longer useful to us.
- Have the word "waste" on the board and have students give examples of things that become waste (e.g., paper and packaging, food scraps, plastic bottles, etc.).

### Types of Waste:

- Have students categorise the different types of waste. (e.g. Banana peels and stale bread would be Food Waste.)
- Look at the different types of waste.

### (Slide 8) Video:

- Show a short engaging animated video introducing the different bins we have (cartoon characters) that give examples of what rubbish goes in each.

### Discussion:

- Ask: "How do you think waste affects animals and plants? What about the air, water, and soil?" Pause here to discuss before revealing answers.
- Discuss the broader impacts of waste on the environment, human health, and wildlife (e.g. landfill, pollution, ocean waste).
- Recap on the points made in the animation. (3 different bins; recyclable, compostable and non-recyclable and what each are used for.)

### Contamination:

- Discuss what contamination is and the problems it causes. Ask the class to give examples of contamination before clicking through for answers.
- Provide waste picture sheet and info sheet handouts showing examples of what goes in each bin that they can use at home.

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## 2. Sorting activity (20 minutes)

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Set up three bins (Recycling, compost, general waste) with a variety of waste items, some more difficult than others (e.g., paper, plastic bottles, food scraps, dirty cans, mixed recyclable items and other common items).\*

\*If no physical items available, print off images.

- Ask students to work in small groups and sort these items into the correct bins.
- Discuss the results after sorting. Talk about why certain items go into each bin and why contamination (E.g., food residue on recyclable materials) can impact the recycling process.

### Follow-up questions:

Go through the different items as examples.

- "Can all plastics be recycled? What about plastics with food residue?"
- "Why is it important to clean recyclables before placing them in the bin?"
- What about items that show a recycle label, does this mean all of it can be recycled?

## 3. Reduce, Reuse, Recycle - The 3 Rs (5 minutes)

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### Discussion on the 3 Rs:

Explain the importance of the 3 Rs (Reduce, Reuse, Recycle) in waste management:

- **Reduce:** Cutting down on the amount of waste generated. For example, choosing reusable items like water bottles and shopping bags (bags for life).
- **Reuse:** Using items multiple times. For example, donating clothes or repurposing containers for other uses.
- **Recycle:** Turning waste into new products. For example, recycling paper, glass, and plastics to create new items.

### Examples of reusable items:

- Show pictures or items that demonstrate reducing waste (e.g. a reusable bag / shopping bag [bag for life], a water bottle, reusable straws, packed lunch boxes).

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## 4. Strategies to minimise waste (15 minutes)

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### Tips for minimising waste:

Write these ideas on the board / create infographic poster (digital or hand drawn).

- Have students think of ideas for how they can reduce waste day to day.
- Come up with a plan to minimise waste in their school or community / create a list of waste-reducing strategies and share them with the class. Encourage them to include the 3 Rs.

### Examples may include:

1. Avoiding single-use plastic items.
2. Using reusable bags / lunch boxes / water bottles or containers.
3. Buying products with less packaging.
4. Reusing glass jars to use as storage containers for other food or as pots for stationary.

## 5. Conclusion and reflection (5 minutes)

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### Review key points:

- Each different bin and examples of what goes inside them.
- Steps to take when recycling.
- The importance of reducing, reusing, and recycling.
- Examples for minimising waste.

### Exit Ticket:

- As an exit ticket, ask each student to write down one specific action they will take to reduce waste in their own life or in their community. For example, using reusable containers, reducing food waste, or setting up a recycling station at school.

### Reflection for Teachers:

Ensure the students are engaging in the sorting task and they all show an understanding of what waste goes in the relevant bins and why.

The sorting activity and poster creation should provide opportunities for hands-on learning but make sure to reflect on what they have learnt.