

Topic: Sustainability

Lesson 1: Plastic recycling	KS or Year Group: KS 3
Resources: <ol style="list-style-type: none">1. SKY video2. Resource 1a – Recycling factsheet3. Resource 1b – Differentiated recycling factsheet4. Resource 2 – Suggested topics for adverts	Outcomes: <ul style="list-style-type: none">• Students become more aware of recycling and waste.• Students are able to reproduce their ideas using adverts to get their message across.

National Curriculum

Key Concepts: 1.1d

Key Processes: 2.1b, 2.2b, 2.3a, 2.3c

Range and Content: 3e

Lesson 1

This lesson gives the students an introduction to the issues around the recycling of plastic.

Starter

- Students are asked to brainstorm the word 'recycling' and what they associate with it, both good and bad. Ten words and phrases are put on the board. Use the **SKY Video** to help discussion.
- Students are then asked to do the same with adverts – saying what their favourite advert is and why they like it. Put ten words and phrases on board.
- Have a brief discussion on the words. Use prompts such as examples of recycling and how an advert has made a product or a message memorable.

Plastic recycling

Main activity

Activity 1

- Give out **Resource 1a** which highlights the facts and problems behind the issue of plastic rubbish (there is also a differentiated version available – **Resource 1b**)
- Students are asked to highlight the 3 points they find most interesting about the information.
- Students are asked to look at the options to reduce the use of plastic bags in the UK. What are the best ones?
- Have a brief class discussion to decide what is the most interesting fact and why.

Activity 2:

- Using **Resource 2**, divide the students into six groups. Give each group a different proposal to run a TV advertising campaign on an issue concerned with recycling. They have 18 minutes to prepare a 1 minute TV presentation.
- Each group needs to keep their presentation to a maximum of 1 minute so allocate a timer.
- The presentation will be used as part of the next lesson.

Plenary

Produce a summary of the main findings, that includes information from the factsheets, their research and discussions and their ideas about what makes a good publicity campaign.

Using the sources listed in the **Check the web** section, make a short list of the things you can do to help recycle.

Check the web

www.wasteonline.org.uk/resources/InformationSheets/Plastics.htm#_What_you_can_do
www.recycle-more.co.uk/nav/page548.aspx

Summary of key learning

- Students learn key, memorable facts on recycling
- Students are able to present arguments for recycling in a manner using advertisements

Resource 1a: Recycling factsheet



Have you ever thought about how much rubbish you and your family throw away every week? Or why we need to stop throwing so much of it away? This page is full of **amazing waste facts!**

UK waste facts

Did you know that...?

- We each use on average **167 plastic bags** every year in the UK.
- Only **one in every 200** bags is recycled in the UK.
- Plastics can take up to **400 years** to break down in a landfill rubbish tip.
- The UK produces more than 434 million tonnes of waste every year. This rate of rubbish generation would fill the **Albert Hall in London in less than 2 hours**.
- Every year UK households throw away the equivalent of **3 ½ million double-decker buses** (almost 30 million tonnes), **a queue of which would stretch from London to Sydney (Australia) and back**.
- On average, each person in the UK throws **away seven times their body weight** (about 500kg) in rubbish every year.
- On average, every family in the UK consumes around **330 glass bottles** and jars a year.

Plastic recycling

- It is not known how long glass takes to break down but it is so long that glass made in the Middle East **over 3000 years ago** can still be found today.
- Recycling two bottles saves enough energy to boil water for **five cups of tea**.
- Every year, an estimated **17½ billion plastic bags** are given away by supermarkets. This is equivalent to over 290 bags for every person in the UK.
- We produce and use **20 times more plastic** today than we did 50 years ago!
- **1 litre of oil can pollute 1 million litres** of fresh drinking water.
- Waste oil from nearly 3 million car oil changes in Britain is not collected. If collected properly, this could meet the annual **energy needs of 1.5 million** people.
- In 2001, UK households produced the equivalent weight of **245 jumbo jets per week in packaging waste**.
- Every year each person **produces four times as much packaging waste as their luggage allowance on a jumbo jet**.
- Babies' nappies makes up about 2 % of the average household rubbish. This is equivalent to the weight of nearly **70,000 double decker buses every year. If lined up front to end, the buses would stretch from London to Edinburgh**.

International Waste Facts

- Each year, an estimated **500 billion to 1 trillion plastic bags** are consumed worldwide. That comes out to **over one million per minute**.
- According to The Wall Street Journal, the U.S. goes through **100 billion plastic shopping bags** annually.
- According to Australia's Department of Environment, Australians consume 6.9 billion plastic bags each year—**326 per person**.
- **Hundreds of thousands** of sea turtles, whales and other marine mammals die every year from eating discarded plastic bags mistaken for food.

Plastic recycling

- **Plastic bags don't biodegrade.** They break down into smaller and smaller poisonous bits contaminating soil and waterways and entering the food chain when animals accidentally eat them.
- As part of Clean Up Australia Day, in one day nearly **500,000 plastic bags** were collected.
- According to David Barnes, a marine scientist with the British Antarctic Survey, plastic bags have gone from being rare in the late 80s and early 90s to being "almost **everywhere in the North Pole**".
- Americans will buy an estimated **25 billion single-serving, plastic water bottles** this year. Eight out of 10 (22 billion) will end up in a landfill.
- **Worldwide, 2.7 million tons** of plastic are used to bottle water each year.
- 1.5 million barrels of oil is used annually to produce plastic water bottles for America alone - enough to **fuel some 100,000 U.S. cars for a year.**

Waste Solutions

- In 2001, Ireland consumed 1.2 billion plastic bags, or 316 per person. An extremely successful plastic bag tax, or PlasTax, introduced in 2002 **reduced consumption by 90%**. Approximately 18,000,000 litres of oil have been saved due to this reduced production.
- July 2003, ReusableBags.com goes live, advancing the **mainstream adoption of reusable shopping bags.**
- Each high quality reusable shopping bag you use has the **potential to eliminate hundreds, if not thousands, of plastic bags** over its lifetime.

Resource 1b: Recycling factsheet



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Plastic recycling

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Resource 2: Suggested topics for adverts



1. How to make recycling cool for young people.
2. How to make recycling mean something to young people.
3. How to get more recycling done by everyone.
4. How to get people to not use plastic bags.
5. An alternative to plastic bags.