

LESSON 1: WHAT DO I THINK ABOUT RECYCLING?

Overview

This opening lesson places recycling in the context of students' lives. It creates a baseline for the rest of the activities by exploring students' current understanding, attitudes and actions. This paves the way for future activities that expand students' knowledge and understanding and help them to think and respond differently at times when they must make a choice. It includes an optional quiz to explore some of the facts and figures.

Learning outcomes

Recycling knowledge and understanding	Citizenship concepts and processes	Personal, Learning and Thinking Skills
<ul style="list-style-type: none"> A wide range of materials can be recycled, including paper and card, glass bottles and jars, steel and aluminium food and drinks cans and plastic bottles. Materials can be recycled at a range of facilities including kerbside collection from homes, public recycling centres and recycling bins in shops and leisure facilities Our own attitudes (and knowledge) influence our choices to recycle/ not to recycle. 	<p>1.1b What is fair and unfair?</p> <p>1.2a Rights and obligations</p> <p>2.2a Expressing opinions</p> <p>2.2b Communicating an argument</p> <p>2.2c Justifying an argument and persuading others</p>	<p>IE: Explore an issue from different perspectives</p> <p>IE: Consider the influence of circumstances and beliefs on decisions</p> <p>CT: Question their own and others' assumptions</p> <p>RL: Invite feedback and deal with criticism</p> <p>EP: Discuss issues of concern</p> <p>EP: Present a persuasive case for action</p> <p>EP: Try to influence others</p>

Resources

Printed:	For projection:
<ul style="list-style-type: none"> Recycling: the facts (Quiz sheet) What do I think about recycling? (Stimulus statements sheet) Opinions template 	<ul style="list-style-type: none"> Video 1 Printed resources Assembly PowerPoint slides: recycling bins and logos

Preparation

Read the background information.

Research local recycling facilities. You can use the postcode locator at www.recyclenow.com to help you.

If you don't want to project and write directly onto your whiteboard, use the 'opinions' template to copy the outline of the waste and recycling bins onto a large sheet of paper.

Use masking tape or string to lay a straight line on the floor of your classroom. This should be long enough for the class to stand along for the opinion line activity.

The quiz is optional and works well with students split into teams to create a competition element. You can project it and answer questions as a class.

Suggested lesson plan

The core activities are highlighted in **bold**. Focus on these if amending the lesson plan or if time is limited to less than 60 minutes.

Starter

Activity	Delivery	Suggested time
Set the scene	Introduce the topic and watch video 1 . What would students do when out and about like this? How do they respond to what the young people know and think? Explain that over the next few lessons, the class is going to explore the impact of the choices that we make about recycling: what the consequences are, why these are important, and why recycling is relevant to all of us. First of all the class will discover what they already know – and do.	10 mins

Main activity

Activity	Delivery	Suggested time
What can we recycle?	What items do students think they can recycle, and what are they made of? Gather students' ideas on the board. They should identify plastic, glass, aluminium, steel and paper. How would the presenters – and students - know that items made from these materials can be recycled? Use the background information to discuss the Recycle Mark and recycling symbols.	10 mins
Where can we recycle things?	Gather students' examples of where they know they can recycle one or more of the five materials above. <ul style="list-style-type: none"> • Do they know what their recycling containers at home look like? <ul style="list-style-type: none"> • Do they know what can be recycled in them? You might want to bring in your own recycling container and some recyclable materials to aid discussion. • Where else can they take materials to be recycled? (e.g. supermarket, recycling centre, recycling banks) • Do you have recycling facilities at school? If you have live internet access, go to www.recyclenow.com and enter your postcode near the bottom of the page (or do this in advance and save the results).	10 mins
Who recycles?	Use a show of hands to discover how many of the class recycle. Record with tally marks on the 'opinions' template or your enlarged copy of it.	10 mins

<p>What do we think about recycling?</p>	<p>Using 'What do I think about recycling?' get students to make a quick list of reasons why they do or don't recycle. Allow students to offer ideas to the class if they want. Focus particularly on peer pressure: why do some students resist recycling?</p> <p>How can they change their minds, or counter negative influences? Get them to write down their ideas.</p> <p>Get students to represent their views by taking their place on a real 'opinion line' on the floor (see preparation above). This is a powerful way for students to experience how their view agrees with or differs from those of their peers. For example, if they strongly agree with a statement, they should stand near the 'strongly agree' end of the line.</p> <p>Alternatively get students, as tables or in groups of four, to discuss the stimulus statements on 'What do I think about recycling?' Students can decide how strongly they agree or disagree with each statement individually, and mark this on the 'opinion line' for each one, or agree a joint response to each statement as a group.</p>	<p>15 mins</p>
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Plenary

Activity	Delivery	Suggested time
<p>Why does it matter what we think – and what we do?</p>	<p>Summarise what students have learned. Do they think that awareness of what can be recycled, and where to do it, is sufficient? Or do students need something else (motivation) to encourage them? Gather together some reasons given by students who appear to recycle the most. Why do these encourage them to act?</p> <p>Explain that in the next lesson, and using some real examples of each material, the class will explore what happens when they recycle or bin waste packaging, and why this matters to <i>them</i> as well as to the <i>environment</i>.</p>	<p>5 mins</p>

Differentiation

Easier	Harder
<p>Clarify that recycling is where waste products, such as used packaging, are made into new materials.</p> <p>Write the names of the five materials on the board before playing the video. Students should call out when they identify an item made from one of the materials.</p>	<p>In <i>Who recycles?</i> 'unpack' the decision with some more quick votes: how many students recycle at home? At school? When out and about? Alternatively, ask the class to clarify who recycles a) when facilities are at hand and b) when they must take their packaging somewhere else to recycle it? This introduces concepts of motivation and effort.</p>

Extension ideas

Get students to justify their position on the 'opinion line', especially if you have brought your 'opinion line' to life. Challenge individual students to explain their chosen position. What argument can they make (for example in one minute) to get other students to join them? Get the students who are stood at the furthest ends of the line to explain their reasons to the class. The other students must listen to their arguments, and then choose an 'end'. Which student makes the most compelling case, and why?

Use the quiz with the whole class (answers are below). The quiz works well with students split into teams to create a competition element. It is meant to be fun and to create debate; students are not expected to know all of the answers. Discuss each question as you go along, or split students into tables or groups and use printed copies along with the projected version.

Students can interview an adult in their family using the stimulus statements. Responses can be anonymous. Gather them together by transferring all the marks onto a single 'master' sheet or an

enlargement on the board. What does this tell the class about how their community recycles, and what it thinks about it?

Students can research local news sources for articles on recycling. What messages does their local media communicate? Do students think they are effective? How do these messages compare to the reasons offered by students who do recycle? (see *plenary* above)

Cross-curricular link to Geography: Space, graphicacy and visual literacy. Students can map local recycling facilities from memory, if you are able to obtain or print a map of your school catchment area. Street mapping or 1:25,000 scale is ideal. Remember that students should be able to mark every household as well as public facilities. Extend students' knowledge by comparing their map to the one generated online using the postcode locator at www.recyclenow.com

Quiz answers

1. **c.** It's an average of just over 500kg,. That is approximately the combined weight of you and 9 classmates.
2. **a.** One new fleece jacket. The plastic bottles are melted down and re-formed into a thread which is then used to make the fleece.
3. **b.** It's 20 times more efficient to recycle aluminium than to manufacture it from new raw materials.
4. **b.** We recycle about half of the steel cans we use. That's okay, but steel can be recycled again and again so it's worth recycling as many as you can.
5. **c.** The energy saved by recycling would be enough to run a Wii for 6 hours!
6. **a.** It would give the equivalent CO₂ saving as taking 156,000 cars off the road.

Background information

Introduction

Recycling describes a range of processes by which waste materials are physically altered and used again to manufacture new products.

These lessons focus on paper and card, glass, steel, aluminium and plastics - the materials most commonly collected for recycling from our homes.

Garden waste and kitchen waste are also collected for recycling in some areas and many other materials, such as wood and waste electrical items, can be recycled at local recycling centres (visit the postcode locator on recyclenow.com site for more info).

Up to 70% of the waste we produce at home could be recycled in the UK. We are currently recycling about a third of it.

Individuals can make a real difference by sorting their waste for recycling. This issue is explored in detail in lesson 2. In summary however, when materials are recycled, this:

- Conserves valuable raw materials and the natural habitats from which they are extracted
- Saves energy and reduces emissions of carbon dioxide because making items from recycled materials uses far less energy than manufacturing products from raw materials
- Reduces landfill, which accounts for a quarter of the UK's emissions of methane, a greenhouse gas far more potent than carbon dioxide.

Labelling

Numerous labels appear on packaging to advise consumers and promote environmental claims. To ensure these claims are accurate, a set of international standards has been developed known as the Green Claims Code, and is issued by the British Standards Institute.

The Recycle Mark is a call to action. Please try and recycle whenever possible. If you are unsure if the item is collected locally, check the postcode locator at www.recyclenow.com.

The new packaging symbols help to identify how different parts of packaging can be recycled:

- “Widely Recycled” means 65% of people have access to recycling facilities for these items.
- “Check locally” means 15% - 65% of people have access to recycling facilities for these items.
- “Not recycled” means less than 15% of people have access to recycling facilities for these items.

These symbols are a guide to how widely different packaging items are recycled, however you should always follow the advice of your local authority. Check the postcode locator at recyclenow.com and see what you can recycle in your area.

Other symbols are used to tell you what material the item is made from:



Plastics



Glass



Aluminium



Steel

There are many recycling symbols for paper and card:

- **NAPM Recycled Mark** – details the recycled content of a product
www.napm.org.uk/recycled_mark.htm
- **Newspapers Support Recycling** – displays the average recycled paper content of newspaper in the UK
www.newspapersoc.org.uk/Default.aspx?page=1254
- A **full** list of paper and board logos can be found on our web site, at:
www.paper.org.uk/information/factsheets/environmental_labelling.pdf

Some symbols do not relate to recycling:



Dispose of this carefully and thoughtfully. Do not litter. This doesn't relate to recycling, but is a reminder to be a good citizen, disposing of the item in the most appropriate manner.



The Green Dot does NOT necessarily mean that the packaging can be recycled. It is a symbol used on packaging in many European countries and signifies that the producer has made a contribution towards the recycling of packaging.

Recording class data: teacher templates

Use the images below to help you record how many students recycle. Use tally marks, or write in the number of students. Project onto your whiteboard, or copy the boxes below onto paper. (You may want to use more than one copy if you are using the differentiation ideas to explore in more depth.)



On the board, draw a line like the one below to record students' responses to each Stimulus Statement. Each student in a group, or the class, can put an 'X' on the line to denote how much they agree or disagree with each statement.



Alternatively, use a 'live' opinion line: use masking tape or string to create a line on the floor – see 'preparation' and the lesson delivery ideas.