



Surrey Environment Partnership
YOUR COUNCILS WORKING TOGETHER

an initiative by
yppte
young people's trust
for the environment

TEACHER'S GUIDE TO LESSONS ON WASTE, RECYCLING AND THE ENVIRONMENT IN SURREY

INTRODUCTION

What is this guide?

Thank you for downloading this teacher's guide to lessons on waste, recycling and the environment in Surrey. This guide and the associated slides were produced by the Surrey Environment Partnership (SEP) in collaboration with the Young People's Trust for the Environment (YPTE). You are welcome to modify it by adding your own slides to the presentations or deleting ones you don't need.

The lessons have been designed to support learners in Upper Key Stage 2 (Years 5 and 6) with understanding how to recycle household waste and the beneficial effects that recycling can have, both locally and for the environment as a whole. The lessons explain how it is important to conserve natural resources, many of which are non-renewable. Children learn that the creation of new resources create greenhouse gas emissions, which can accelerate climate change. They draw links between recycling and helping to protect the environment.

SEP comprises Surrey County Council and the eleven district and borough councils in Surrey. It aims to manage Surrey's waste in the most efficient, effective, economical and sustainable manner. Discover more about SEP at <https://www.surreyep.org.uk> or get in touch at: comms@surreyep.org.uk

YPTE wants to encourage more and more young people to learn about taking care of our world and their website is a great starting point for this. You can

find lots more supporting information by visiting the 'Explore' section of <https://yppte.org.uk>

This package of lesson plans consists of four lessons:

- **Lesson 1:** Waste and the environment
- **Lesson 2:** Waste reduction
- **Lesson 3:** Food waste: recycling and reduction
- **Lesson 4:** Recycling right - contamination

Links to National Curriculum

- Science
 - Compare and group together everyday materials on the basis of their properties (*Year 5, Properties and changes of materials*).
- Citizenship
 - Understand that resources can be allocated in different ways and that these economic choices affect individuals, communities and the sustainability of the environment. (*Key stage 2*).

Notes to teachers

- These teaching notes and activities run alongside PowerPoint presentations and all slides are referred to in the notes. The information can be adapted to suit different learners at different stages by adding/deleting slides on the presentation and varying the level of detail used from the teacher notes.
- Although these lessons are designed to run in sequence, you may choose to teach each as a standalone session. If choosing this approach, it would be helpful to refer back each time to the slides from lesson 1 which explain the impact that waste can have on climate change.
- Activities given are suggestions only. The main purpose of these resources is to provide key information and visual aids for teachers to adapt to their needs.

LESSON 4: RECYCLING RIGHT - CONTAMINATION

Learning Objectives

- Children will understand that it benefits the environment when we recycle as much as possible.
- Children will realise that when items that can't be recycled are put into recycling bins, it can spoil a whole truckload of material, which is then unable to be recycled at all.

Suggested starter activity

Slide 3: WOULD YOU BIN THIS?

Before the lesson, gather a range of items that might typically be thrown away. Divide the items up on the tables in the classroom so that each group has a selection.

Provide a range of items, including some that are typically assumed to be recyclable, but actually aren't. Some possible items to include could be:

Kitchen roll	T-shirt	Something to represent
Newspaper	Polystyrene box	food waste (such as an
Crisp packet	An old phone	apple or a picture of
Plastic bottle	Coffee pods	food scraps)
Food can	Classroom scrap paper	Plastic carrier bag
Takeaway cup	Batteries	Glass bottle
Nappy	Pizza box	

At the front of the class, have a black bin bag, a recycling box and another box labelled 'other'. Invite children to discuss the items on their tables in their group and decide whether this type of item can be recycled in the recycling box, whether it can be recycled somewhere else ('other') or whether it needs to be thrown away in the black bin bag, with general waste. Sort the items into the bag or boxes and note down any which cause a discussion or disagreement. For example - the pizza box could be recycled if it was really clean, but not if it was greasy, or still contained food.

Teacher notes for Powerpoint presentations

Slide 4: KEY QUESTION: Why is it important that we recycle as much as possible?

Revise the points that children can remember from previous lessons, such as conserving natural resources and minimising harmful greenhouse gas emissions.

The more items we use, the more resources and energy are used to create them. Over time, this leads to the depletion of our planet's limited resources and accelerates climate change. Yet many of the items that are produced end up being thrown away. Recycling means we use fewer resources in the creation of new items.

Discussion activity: What are these products made from?

Revise some of the natural resources that are used to make products. Select a few of the sorted items from the bin and boxes at the front of the class and ask children to discuss what these are made from. Where do these resources come from?

Slide 5: Metals (such as those used to make food and drink cans and a range of items in the classroom) have to be mined from under the ground. They also go through many energy intensive processes in order to shape them into the items that we use every day. Metal mining causes many environmental impacts such as deforestation, soil erosion and contamination of soil and waterways.

Slide 6: Paper, cardboard and wood are made from trees. Humans are responsible for cutting down and burning huge areas of forests. This deprives many creatures of their homes. Over two million trees are cut down every day just to make paper. This adds up to around four billion trees every year. Trees absorb carbon dioxide through their leaves and release oxygen back into the atmosphere, helping to regulate the climate. The more trees we use, the less CO₂ is removed from the air.

Slide 7: Plastics are made from oil, a fossil fuel that is drilled from deep in the earth. Plastic waste creates toxins as it breaks down and these seep into the soil and waterways over time. Because plastic has only been around for a relatively short time, and because it can take many hundreds of years to break down, we have no evidence yet for the harm that it could cause to the environment. At the moment, 40% of the plastic waste we create is from food packaging that is used only once.

Slide 8 - 9: Recycling materials means that fewer of these natural resources have to be used creating new things. It generally takes less energy to make products from recycled materials than it does to make new ones. Lots of our electrical energy comes from burning fossil fuels that give off harmful

greenhouse gases. Therefore, recycling can also help reduce some of the greenhouse gases that speed up climate change.

Slide 10: As we have seen in Lesson One, climate change is very harmful to ecosystems. A warming climate creates many extreme weather events and the destruction of habitats. It already affects the lives of many people around the globe and will only get worse if we do not work hard to cut our greenhouse gas emissions.

Slide 11: Dealing with rubbish is an expensive task and it's one that can't be ignored, or all the waste would just keep piling up! It costs more money to deal with waste than it does to process recycling, so when you put things that could be recycled into the general waste bin, it's not just a waste of that resource that could be used again, it's also a waste of money.

Slides 12 - 13: Councils only receive a set amount of money from the government and they have to decide what to spend it on. If they have to spend money dealing with people's rubbish, they won't have as much to spend on other things. When people recycle properly, it saves the council money, so they can spend it on things like caring for the elderly members of the community, or taking care of playgrounds, parks and other public areas.

Slide 14: People often don't realise that throwing the wrong things away in their recycling bin can have a big impact on the rest of the recycling. If items that can't be recycled are put into recycling bins, it can mean a whole truckload of material isn't recycled after all. Dirty packaging or badly sorted waste can spoil everything in with it, making the whole load impossible to be recycled.

Slide 15: This is a real problem in Surrey and something that you can help make a big difference with. Every year over 16,000 tonnes of Surrey's recycling isn't recycled because it is isn't made of recyclable material. This is the equivalent to the weight of about 150 blue whales! If people learn what can and can't be recycled in their bins, this amount could be so much lower!

Slides 16 - 17: The most common items that can't be recycled and are put into recycling bins are bubble wrap, greasy pizza boxes, coffee pods, crisp packets, disposable nappies, face masks, food and juice pouches, **plastic souvenir cups highlight this as there is no image on the slide**, polystyrene/Styrofoam packaging, wipes, takeaway coffee cups and kitchen towel.

KEY QUESTION: Did anyone choose to put any of these items into the recycling bin during our sorting exercise earlier? Remember that these items cannot be recycled - we'll be re-sorting them later!

Slide 18: Luckily, Surrey Environment Partnership has come up with 5 hacks to help you and your family to work out where your recycling should go, so that you can help play a part in protecting the planet from climate change! These are available to check out on their website at:

<https://www.surreyep.org.uk/reduce-reuse-recycle/five-hacks-to-simplify-your-recycling/>

Slide 19: Hack one: Test your recycling know-how. You can play the [Recycle Right waste sorting game](#) to help you understand which items go in which bins.

Drag and drop the items to the correct bin (or choose to take them to the recycling centre) and build a fantasy play area as you complete each level. At the end of the game, there's the chance to print out a certificate of achievement. Making mistakes just lets you try again, so there are plenty of opportunities to practise sorting! **Put the game up on the interactive whiteboard and invite children to play. This should help answer their queries about the remaining items from the sorting activity.**

Slide 20: Hack 2: Check it out. Some items look recyclable but actually aren't able to be recycled in your local area, even if the label says so. You can find out what should and shouldn't go in your recycling bin by using the Surrey Recycles search tool. The tool can be found on the [Surrey Environment Partnership website](#) or can be downloaded to your phone as an app. Just type in your postcode to find the guidelines for the place where you live.

Slide 21: Hack 3: Get it sorted. Once you have checked online and you are confident that you know which items belong in your waste and which can be recycled, organise a sorting system. Remove all non-recyclable items from the recycling bin. Remember that food and garden waste, small electricals, batteries and textiles recycling are collected separately in most areas, they CAN be recycled, but they don't go in your recycling bin.

Slide 22: Hack 4 - Keep it clean and dry. Moisture and grease will ruin cardboard and paper and make it unrecyclable. Only recycle clean, dry packaging. Empty, rinse and dry bottles and cans before they go into the recycling bin.

Slide 23: Hack 5: Loosen up. Place all items loose – nothing in bags, sacks or bin liners. Crews need to be able to quickly see the items to check they are recyclable. Make it nice and easy for the team by keeping things clearly visible.

Slide 24: Final sorting activity and explanation.

Sit children in a circle (if possible) or clear an area that is easily visible and upend the boxes and bin into a space. Invite children up to pick an item and to explain what it is made of, where they are choosing to sort it, waste bin, recycling bin or other recycling and why. During this activity, you could have the Surrey Recycles search tool up on the interactive whiteboard so that you can check items as you go.

Draw out any specifics - such as the fact that paper and card can be recycled, but only if it is clean and dry. A greasy pizza box can't go in the recycling!

Suggested follow-up activities

Make a "5 Recycling Hacks" poster

Use the 5 Hacks from the Surrey Recycles website to design bright posters reminding people of ways to sort their recycling. These can then be displayed prominently by the waste bins at school and at home to help everyone sort their waste. <https://www.surreyep.org.uk/reduce-reuse-recycle/five-hacks-to-simplify-your-recycling/>

Set up a waste cleaning station

See if it is possible to set up a table with a bowl of soapy water and some tea-towels near the point where children eat their packed lunches and discard any waste. Members of the school council or eco-club could take turns to be stationed at the cleaning station, to rinse and dry any recyclable packaging and save it from the rubbish bin. They could take the opportunity to explain to any curious children what they are doing and why, in order to spread the word!

Waste sorting display

Use the items from the sorting activity to make a bold display showing which items should and shouldn't go into the recycling bin. Place this somewhere prominent in school, ideally in a place that visiting parents can see it, as well as children.