

Waste and Recycling topic introductory session plan and activities

Key stage:

KS2/KS3

Can be adapted for other Key Stages or adult groups

Subject: Science/STEM/PSHE/Citizenship/Geography

Topic: Waste and recycling

Resources for introductory activity:

- sticky notes, pens, board or flipchart paper,
- “Greater Manchester bin colours information sheet” https://recycleforgreatermanchester.com/wp-content/uploads/2019/10/Greater_Manchester_Bin_Colours_Information_Sheet.pdf
- **Resources for guided group activity: all found at** <https://recycleforgreatermanchester.com/education-and-learning/learning-resources/right-stuff-right-bin/>
 - 4 bin posters (correct colours for your council),
 - Location cards charity shop/reuse card, Household Waste Recycling Centre
 - Right Stuff Right Bin Sorting cards card (5 pages to print, cut out per set. The 6th page are red edged cards to add in for adult / community groups only)
Right Stuff Right Bin answer sheet

Vocabulary:

- General waste
- Recycle
- Plastic
- Steel
- Glass
- Paper
- Cardboard
- Aluminium
- Food and garden waste
- Reuse
- Household Waste Recycling Centre (HWRC)
- Charity shop
- Resource
- Renewable
- Non-renewable

Learning objectives

- To start the discussion about waste and recycling and to learn what is accepted in the different coloured bins in Greater Manchester
- Students will be able to describe the enormous breadth of items that are thrown away or classed as waste and that they can be divided into different categories
- Students will be able to explain the correct placement of waste items in their own bins and that there are alternatives for items that cannot be recycled
- Students will be able to identify the different coloured bins in their district which relate to each waste stream

Introduction:

Activity source <https://recycleforgreatermanchester.com/education-and-learning/learning-resources/what-is-waste/>

Ask each student to write down an item of waste on a post it note / something they get rid of or no longer want / throw away from their home. Encourage them to think about different rooms/times of the day that waste is created. Aim for about 30 post it notes to generate a decent discussion so if your group is smaller, they could fill more in each.

Divide up a whiteboard/flipchart paper into 4 sections. Write the following titles, one in each section

1. Paper and card bin
2. Food and garden bin
3. Mixed recycling bin
4. General waste bin

Ask each person to come and place their post it note in the correct section. Students may soon notice that they may have written something that does not fit into one of those categories e.g. an old fridge or coat. Have a discussion about what else you can do with things you no longer want. E.g. go to the Household Waste Recycling Centre (tip) or donate to charity / sell it etc.

Add these extra categories on the whiteboard/paper and continue posting the notes.

Refer to the “Greater Manchester bin colours information sheet” answer sheet to ensure that each sticky note is placed correctly

Main teaching: Why should we recycle correctly?

Ask children their thoughts but expand on key ideas rather than just “it helps the environment”. The issue of pollution and plastic in the sea may come up. Address this by explaining if they put rubbish in the correct bin, they will never end up in the sea. Dropping litter can be discussed separately.

The main reasons are:

- It saves the earth’s resources. We can recycle the material that has already been taken out of the earth rather than mining, cutting down trees etc. You can go on to discuss renewable and non-renewable resources, damaging habitats (see also *One world* animation activity <https://recycleforgreatermanchester.com/education-and-learning/learning-resources/only-one-earth/>)
- It saves money. It is cheaper to recycle than to get the resource from the earth and manufacture a new item from natural resources.
- It saves energy. Making an item from recycled material, uses less energy than manufacturing the item from natural resources.
- Material to be recycled is valuable. If it is put in the wrong bin, it is known as “missed capture” as it is impossible to get it out of the incorrect bin to then be recycled.
- If things are put in the wrong bin, it “contaminates” the rest of the things in that bin. For example, if people put a green garden hosepipe in their food and garden bin, it could get chopped up and mixed into the compost which would spoil the value of the compost as it would have plastic bits in it.

Ask students to identify the different colour bins that they have at home and match to the correct waste stream (on whiteboard). Refer to the “GM bin colours information sheet”. Print out your Council bin colours sheets and stick on the correct waste streams on the whiteboard.

Once the students have matched the correct waste streams to the correct bin colour, they can play the Right stuff Right bin sorting activity in small groups/tables to consolidate their knowledge.

Guided/group tasks:

Memory game

Can be used for lower ability groups or to encourage more waste items to be identified in small groups. E.g., I went to the bin, and threw away...

Students have to remember all the items that have previously been said.

Try to identify at least 10 from each waste stream/bin

Supporting adult could make a list so they can prompt and offer clues to identify more items

Right stuff, Right bin activity source: <https://recycleforgreatermanchester.com/education-and-learning/learning-resources/what-is-waste/>

This is a ready-made card sorting activity to encourage correct waste sorting.

This activity takes waste sorting a step further and includes items that cannot be placed in the bins provided by the Council. Pupils have to decide whether an item is suitable for:

- One of their bins at home
- Donation to charity
- Taking to the local Household Waste Recycling Centre

You will need a set of resources per table: A set of sorting cards, set of 4 correct coloured bins for their council area, a set of “location cards (charity shop/reuse card and Household Waste Recycling Centre card)

Split the students into small groups or they can work in their mixed ability table groups. Lay the 6 A4 cards on the table and share out the sorting cards between the students.

They then either take turns or start to sort the cards onto the correct A4 cards. Some rubbish items may fall between 2 of the cards. Discuss the potential condition of the items to work out where they would be best placed. E.g. A sofa in good condition could be donated to a charity shop, a sofa with springs sticking out and with ripped cushions may be better off at the HWRC

Adults to oversee each group but don't tell them if things are right/wrong.

Refer to the Right Stuff Right Bin answer sheet

Bring the group back together to go through the answers and address any misconceptions/discussion points.

Extension/Independent tasks:

Design a poster/leaflet to encourage correct recycling at school and at home using the correct colour of bins in each district

Plenary/Assessment for Learning (AfL):

Re visit that it is very important to put the correct items in the correct bin. Ask for reasons why to clarify as per discussion in "main teaching". Hold up items and students shout out which coloured bin it goes in. Can test their knowledge by holding up some ambiguous items e.g. plastic tub, drinking glass etc

Evaluation

What went well?

What would you do differently/include next time?

