

Plastic Citizen: Classifying single use plastics

Links to the National Curriculum

KS1 Science

- Work scientifically identifying and classifying

Materials

- Distinguish between an object and the material from which it is made
- Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
- Compare and group together a variety of everyday materials based on their simple physical properties

KS2 Science

- Work scientifically gathering, recording, classifying, and presenting data in a variety of ways to help in answering questions

Materials

- Classify materials according to a variety of properties

Learning objectives

- Understand and use the terms recycle, reuse, repurpose and reduce in relation to single-use plastic
- Identify and describe single-use plastic, understanding that not all plastics look the same or have the same properties
- Identify plastic objects that can be recycled

Resources

Examples of each of the 7 types of plastics (see [Different Plastic Polymer Types resource sheet](#)) include the 4 main plastic polluters: carrier bags, plastic drinking bottles, drinking straws and disposable coffee cups. Also try to include black plastic food trays, tetra pack cartons and crisp packets as these are often used by children but can't always be recycled. Try and make up a large bag (use the bag as an example too) for each group that they can tip out onto floor/table). Include some 'wild cards' such as a computer mouse for example, which contains different components which the waste recycling facility will need to break up to retrieve.



Activities

Introduction activity: what do you already know about plastics?

- List as many single use plastics as you can think of.
- What is the problem with single use plastics?
- What can we do about this problem?

Activity 2

- Discuss the 4Rs – recycle, reuse, repurpose and reduce in relation to single use plastic. What do these terms mean?
- How do the children recycle waste in their own homes?
- In groups, give each group an item of single use plastic i.e. plastic bottle; plastic cutlery and ask them to come up with an example for each of the 4Rs that they could do with that particular piece of plastic.
- Present and share ideas (could take photos on iPad/phone and upload to Padlet).

Activity 3

- See [Different Plastic Polymer Types resource sheet](#) for descriptions of the symbols and photocopyable symbols for use with children. Share the symbols with children and, through discussion, explain what they mean.
- Bring in a range of plastic objects (make sure that there is at least one object from each of the 7 classifications) and ask the groups to sort these according to their classification using the [Different Plastic Polymer Types resource sheet](#).
- Ask children to label items according to whether they can or cannot be recycled. (they could use iPads to research whether these can be recycled in their area).

Conclude and discuss

- Are the children surprised by which items can and cannot be recycled?
- Are there any items that they use but did not know could be recycled?

Next steps

Arrange a visit to/invite a representative from your local waste recycling facility to come and talk about how they recycle and process waste. The group could collect some of the school's plastic waste to show them and ask them how best to reduce/recycle this waste.

Group could carry out a survey of what type of plastic is being thrown away by the school. Include teachers staff room, dinner hall, classrooms, and the school playground. Does the school need any extra recycling facilities or posters to encourage everyone to recycle?

