

WASTE

Activity W01

Theme

Demonstration (D) and or Class activity (CA). The class looks at the contents of a 'clean' bin and considers ways of reducing, reusing and recycling waste. A table is provided for the teacher on how to reduce, reuse and recycle typical waste items.

Objectives

Introduces the waste topic, gets students thinking about waste, things we throw away, and the benefits of conserving resources

Curricular Strands

SESE, Science–Materials; Properties and characteristics of materials; Science and the environment

SESE, Science and Geography–Environmental awareness and care

Skills

Questioning, observing, predicting, sorting, classifying and recognising patterns

Time

35 minutes

Links to Green Schools

Waste and Litter

What's in your bin?

→ REDUCE, REUSE, RECYCLE!

WHAT YOU NEED

A clear plastic bag containing clean examples of some of the following:

- Milk carton
- Plastic bottle
- Beverage can
- Food can
- Cling film or plastic wrapping
- Cardboard
- Crisp packet
- Sweet wrapper
- Glass container
- Newspaper

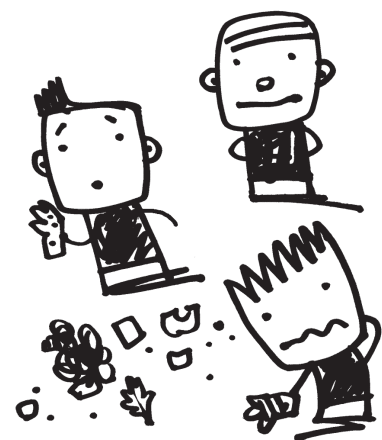
WHAT YOU DO

- 1 Ask individual students or groups to bring one item from the above list into school. Alternatively, the teacher can gather the items
- 2 Collect these items in a clear plastic bag

- 3 Go through each item in the clear plastic bag, asking the students the following kinds of questions

- Have they ever seen this in their bin at home?
- What is the item made of? (write suggestions on blackboard)

The students could consider these questions in groups.



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Questions

- 1 What else is in your bin?
Responses such as leftover food or tea bags will introduce the topic of composting (see Waste Activity 8).
- 2 Why is it better to try to find ways to reduce waste before considering recycling?

Go further

Ask each group of students to assemble the same 'clean' bag of rubbish as above. Ask them to sort the rubbish into different groups—e.g. plastics, metals or paper. They can make up their own categories with explanations. Explain that recycling involves this kind of sorting so that materials can be processed. Your local recycling centre may welcome a visit to explain how this kind of sorting is done. See www.repak.ie/.

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**Plastic Bottles**

Over 70 million plastic drinks bottles are sold in Ireland every year.

Reduce Choose a reusable bottle or beaker. Drink less fizzy drinks or buy larger bottles

Reuse Wash and refill the bottle and use it once or twice again for drinks.

You can make bird feeders from plastic bottles or use them to protect young plants from frost (and slugs!) in the garden. You can even make a bottle garden. For excellent ideas visit www.blackrock-edu.ie/ and click Environment.

Recycle Plastic bottles are melted down and made into pellets, flakes or chips. One use is to make fleece sweatshirts and jackets!

**Paper**

Over a fifth of household waste is paper and card. Nearly all of this material can be recycled in some way.

Reduce Use both sides of a piece of paper and save a tree! Don't print out e-mails or other computer documents if you don't need to.

Reuse Save up your scrap paper to make message pads or papier mache.

Recycle Paper mills make egg boxes, toilet rolls and animal bedding from recycled paper.

**Drinks Cans
Aluminium Cans**

Over 100 million drinks cans are sold every year in Ireland.

Reduce Choose a reusable bottle or beaker. Drink less fizzy drinks or buy larger bottles

Reuse Do you have ideas for how to reuse these cans?

Recycle Repak run a cash for cans programme in schools www.repak.ie/. Recycling a can takes less than one tenth of the energy needed to make a new can.

**Food Cans
Steel Cans**

Steel cans cost less to make than aluminium cans and so have a lower

value when recycled, but steel is a valuable resource and the scrap metal can be reused.

Reduce Buy fewer food cans. Try out a homemade soup recipe or buy fresh locally grown food.

Reuse Clean out old tins (with adult help) and use as storage, for pencils, buttons, elastic bands, marbles, nails, nuts and bolts.

Recycle Most Local Authority bring centres accept food cans for recycling. Find out where nearest centre is <http://www.repak.ie/>.

**Plastic Film & Wrapping**

There are over 50 different types of plastics in common use. Some are easier

to recycle than others. Look for the triangle symbol: this tells you what kind of plastic it is (see plastic recycling information sheet in Waste Activity 6).

Reduce Try buying food with less

packaging. If you are buying fruit and vegetables leave them loose: don't use a bag.

Reuse Don't throw out small plastic bags or bread wrappers: reuse the bags to cover or store leftover food.

Recycle Soft plastics can be recycled at most Local Authority bring centres. The plastic is recycled into bin liners and carrier bags.

**Sweet Wrappers
Crisp Packets**

Many of these wrappers are made of plastic on the outside and foil on

inside. As a result, these wrappers cannot be recycled as it is too difficult to separate the materials they are made from.

Reduce Too many sweets and crisps are bad for your health, so eating less

benefits you and the environment. Choose packets made from recyclable material when you can.

Reuse Collect coloured wrappers to use in art class and make posters promoting 'Reduce, reuse and recycle!'

Recycle Unfortunately, these wrappers cannot be recycled so that's another good reason to eat less crisps and sweets!

**Glass**

About 20 kilograms of glass waste per person is created in Ireland every year in household waste (not counting pubs, shops, etc.) and only about a fifth of it is recovered.

Once collected, recycled glass bottles are crushed into cullet and used in the manufacture new jars and bottles.

Reduce Instead of buying sauces and jams in jars, save up old jars and make your own jams or sauces (adult help required).

Reuse Use old jars for storing herbs in the kitchen or nails in the shed. You could try mixing paint with washing-up liquid and painting designs or names on to the jars. You could also make a home or observatory for a minibeast. For excellent ideas visit www.blackrock-edu.ie/ and click Environment.

Recycle Most Local Authority bring centres will collect all kinds of glass. Recycling glass saves energy. One recycled bottle saves enough energy to light a 100 watt bulb for 4 hours. As well as being used to make new jars and bottles, recycled glass is also used in concrete, roadbeds, fibreglass and ceramic tiles.

**Milk/Juice
Cartons**

It is estimated that about 12,000 tonnes worth of beverage cartons are thrown away in Ireland every year.

Reduce Instead of buying small orange juice cartons buy one big container or bottle and refill a flask.

Reuse Clean out and cut off two sides of a milk carton to make a bird feeder to hang in your garden. Half a milk carton makes a great plant pot!

Recycle Some Local Authority bring centres will collect carton waste. Contact your nearest or www.repak.ie/