

## WASTE

## Activity W05

**Theme**

Class activity (CA). An investigation based on burying various waste items and monitoring them over time to see which rot quickly and which remain intact. This is a good activity to start in September and monitor over the school year.

**Objectives**

Understanding how we deal with most of our waste and how this affects the environment. Looking at how different materials react in different ways when disposed of.

**Curricular Strands**

SESE, Science–Materials; Properties and characteristics of materials

SESE, Science and Geography–Environmental awareness and care

**Skills**

Questioning, observing, predicting, investigating and experimenting, recording and communicating

**Time**

20–30 minute introduction; 20–30 minutes on predictions; 10–20 minutes burying the waste depending on whether the holes are prepared in advance or not; 20 minutes to check on waste after two weeks and again after a month.

**Links to Green Schools**

Waste and Litter

# Rot or not?

## → INVESTIGATING BIODEGRADABLE AND NON-BIODEGRADABLE WASTE

**WHAT YOU NEED**

- Bread crusts
- Glass bottle
- Plastic bag
- Milk or juice carton
- Some aluminium foil
- A sheet of newspaper
- Enough rubber or plastic gloves for those handling the waste

**Note:** For senior classes you may wish to let the students come up with a list of items for burial.

**WHAT YOU DO****In advance**

You will be burying items of waste in the school grounds so you may prefer to dig the holes or have students dig the holes in advance.

- 1 Ask students if they have seen these items at home, and how they get rid of them. Explore what happens to waste when it is taken away in a bin lorry.

- 2 Explain that biodegradable waste is waste that will decompose (i.e. rot, or be broken down by bacteria). It is often referred to as organic waste and includes materials such as food and garden waste, paper, cardboard and some types of wood and textiles.
- 3 At the moment over 90% of waste (nine out of ten bins) in Ireland goes to landfill sites. The waste is covered in soil or buried, then another layer of waste is added, and another layer of soil and so on.



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Continued →

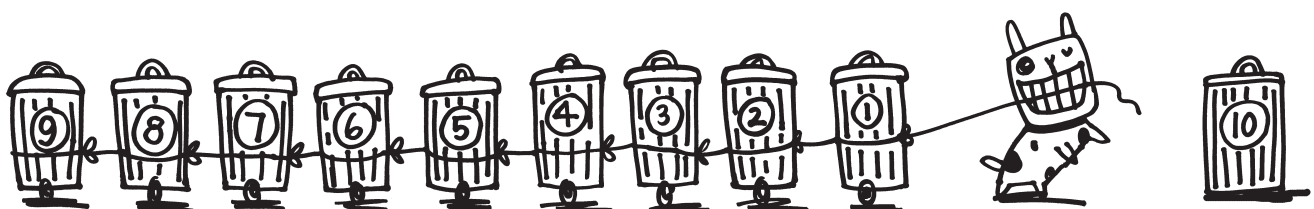
- 4 Tell the class that you are going to bury the items in the school grounds. Ask them to predict what will happen if you dig the items up after two weeks and after one month.
- 5 Students can record their predictions on the sheet provided. Monitoring can be continued over a longer period of time.
- 6 Bury the items and mark the spot!
- 7 Return after two weeks and look at the waste items, record what has happened to each and cover them in soil again. Anyone handling the waste should wear gloves and wash their hands afterwards.
- 8 Repeat after one month and record what has happened.

## Questions

- 1 Ask students to think of alternative ways of dealing with each waste item other than putting them in the bin for dumping. Make compost and use it in the garden, reuse plastic bottles, bring the items to a local bring centre for recycling.
- 2 Discuss the issues around landfills (dumps), such as the space they take up, and possible problems such as odour or unsightliness. Chapter 13 of Ireland's Environment 2004 discusses these issues, and includes a map of all landfill locations in Ireland (see [www.epa.ie](http://www.epa.ie))

## Go further

- 1 Conduct a litter survey in the school grounds or local area  
**Note:** Children should not handle the litter
- 2 Record each item of litter and whether it is biodegradable. If it is not, can it be recycled locally?
- 3 Set up a compost heap in the school (see Waste Activity 8)



We still bury almost 9 out of 10 bags of waste in Ireland at landfill sites.

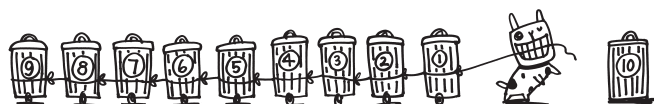
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## Did you know?

- 1 Biodegradable waste is waste that will decompose, rot or break down.
- 2 We still bury almost 9 out of 10 bags of waste in Ireland at landfill sites.
- 3 About 6 out of every 10 bags of rubbish in Ireland are biodegradable waste

items to bury	Prediction:		Prediction:	
	What will happen after two weeks?	What happened?	What will happen after one month?	What happened?
Bread crust				
Glass bottle				
Plastic bag				
Juice or milk carton				
Aluminium foil				



We still bury almost 9 out of 10 bags of waste in Ireland at landfill sites.