

D4 ACTIVITY 1: SMART PACKAGING

Background

The aim of this activity is to investigate the problems associated with excess packaging and waste going into landfills.

Suggested approach:

- Depending on the class, using worms could cause disruption and some students may be reluctant to participate. It is possible to do the investigation as a class demonstration instead if this is more suitable for the class.
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Equipment required:

- A glass or clear plastic container (at least 35 cm deep)
 - Cardboard to cover the container
 - Soil
 - Sand
 - Worms
 - Potato peels
 - Newspaper
 - Biodegradable plastic, e.g. biodegradable bin liners
 - Plastic wrapping
 - Dry leaves
 - Two markers suitable for writing on plastic (e.g. CD pen) each of a different colour
 - Biro, pointed screwdriver or metal skewer (to punch holes in the cardboard)
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What to do:

1. Fill the glass or plastic container with layers of sand and soil until they are approx. 7 cm from the top of the container.
 2. At different points between these layers, place the potato peels, newspaper, biodegradable plastic and plastic wrapping. It is important that the plastic wrapping is not layered across the soil, preventing the worms from getting through.
 3. Using a marker, record on the outside of the container the location of each of the materials listed.
 4. Cover the top of the container with dry leaves.
 5. Scatter some worms from the garden on top of the leaves.
 6. Using a biro, make a number of air holes on a sheet of cardboard and use it to cover the container.
 7. Take a photo or draw a diagram of the container, showing where all the materials are located.
 8. Surround the container with a black bag.
 9. Leave the container in a warm, dry place for two weeks.
 10. After two weeks, remove the packaging and have a look at all the materials.
? Is everything in the same place?
 11. With a different coloured marker, mark where the materials are. Write a description of what has happened to each material.
 12. Continue to monitor the compost for as long as possible, and graph the results.
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Resources:

- View appropriate videos and exercises for students from the [EPA website](#).
- Information on the [life cycle of plastics](#).