

materials

Materials and our environment: sort the classroom waste

Lesson at a glance

Open with a tray of clean classroom waste and one curiosity question about what could be used again. Teach the four destinations with real items in hand — recycle vs landfill first, then compost and reuse — before groups sort 8–10 clean items into labelled trays, hoops or newspaper mats. Check placements on the sorting-tree interactive, then pupils record two or three sorted items plus one practical reduce-or-reuse class action in the Investigation Journal. Close by choosing one shared action and tidying with handwashing.

Learning objectives

- Sort clean classroom waste into recycle, compost, reuse and landfill
- Explain why some materials can be reused or recycled and why sending too much to landfill can harm the environment
- Propose one practical reduce-or-reuse action the class can take

Before the bell – prep

Day before: gather only clean, dry, safe sample waste (scrap paper, rinsed bottle, yogurt pot, can, crisp packet, polystyrene, dry leaf/sealed peel, fabric scrap) — about 8–10 items per group. Print four destination labels per group. Set trays, hoops or labelled newspaper mats; put gloves out. Prefer plastic jars if glass supervision is tight.

**Materials**

Item	Qty	Per	Source	Low-cost substitute
clean dry sample waste items (paper, cardboard, plastic bottle, yogurt pot, can, crisp packet, polystyrene, fabric scrap, dry leaf or tea leaves)	8	group	classroom	cut-out picture cards of the same items if real waste is hard to gather
shallow trays, hoops, or labelled newspaper mats for four destinations	4	group	classroom	four sheets of newspaper as floor mats with labels (often the simplest option)
sorting labels (Recycle, Compost, Reuse, Landfill)	1	group	classroom	write the four words on sticky notes or card offcuts
disposable gloves	1	pupil	supermarket	shared class set washed as wipe-clean reusable gloves, or hand-sort with hand-washing before and after
Investigation Journal page	1	pupil	classroom	plain paper with the lesson title at the top
class noticeboard space or IWB for the chosen action	1	class	classroom	a sticky note on the teacher's desk planner

Safety watch-point

Gloves on for the sort; clean dry samples only — no food goo, sharps or bathroom waste. Glass only with close supervision; no tasting; wipe spills; wash hands when trays are cleared.

Teaching moves

- **Getting Started:** Hold one tray or a surprising pair (clean bottle beside a crisp packet). Ask only which could be used again and the key question about waste staying in the classroom forever. Surface quick home-bin ideas; do not teach the four groups yet. Have four labelled destinations ready per group before you move on.
- **Four places for waste:** Teach with items in hand while pupils stay seated. Start recycle (clean bottle) vs landfill (crisp packet), weave the Ireland bag-charge line, then add compost (dry leaf/sealed peel) and reuse (jar or scrap paper). Pause after each pair so the four places do not blur. Model one think-aloud sort with the bottle before groups begin.
- **Audit and sort the classroom waste:** Groups of about four work one tray and four labelled destinations. Circulate asking what it is made of, whether it could be used again as it is, and whether dirt would stop recycling. Watch for material naming, reasoned mind-changes, and debate items (crisp packet, polystyrene, fabric).
- **Check the sort on the board:** Drive the sorting-tree interactive yourself in explore mode; pupils call out recycle, compost, reuse or landfill. Fold the class in: do you agree, and what would make this hard to recycle? Accept both reuse and recycle for a clean jar when the reason is sound. Note that school bins lead and county rules can differ slightly.
- **Record the sort and our idea:** Investigation Journal in the lesson sitting only. Must-do in about ten minutes: two or three sorted items with their group, one short reason, and one class-sized reduce-or-reuse action. Oral rehearsal first — We put the ... in ... because ... — and drawing plus labels is fine. Steer actions toward scrap-paper trays, jar pencil pots or bottle reminders, not huge promises.
- **Share our class action:** Each group shares one reduce-or-reuse idea in a single sentence. Shortlist two realistic ideas, take a show of hands, and write the winner on the board and a sticky note for the noticeboard. Revoice the action and ask the first small next-week step before tidy time.

What it should show

Expect recycle for clean paper, cardboard, plastic bottles, cans and often glass; compost for apple core, banana peel and dry leaves; reuse for a useful clean jar or blank-side scrap paper; landfill for crisp packets and polystyrene in ordinary school bins. A group that bins every plastic item as recycle usually has not checked clean-and-dry or film packaging — re-hold the crisp packet and ask whether the material can actually become something new.



Misconceptions & interventions

- **All plastic goes in the recycling bin.** — Hold the crisp packet or film wrapper beside the clean bottle. Ask which is one clean material that can become something new, and stress clean and dry — dirty, mixed or filmy plastics often cannot go in ordinary recycling.
- **Landfill is just another bin, same as the others.** — Point back to the crisp packet and revoice that landfill is the last choice when we cannot recycle, compost or reuse — it takes land and can harm the environment, so we send as little there as we can.
- **Reuse and recycle mean the same thing.** — Hold the clean jar: reuse is using it again as it is (pencil pot); recycle means breaking the material down to make something new. Prefer reuse first when the object is still useful.



Differentiation

Emerging	Developing	Proficient
• Give a smaller tray of about 6 clear-cut items and oral sentence starters: We put this in ... because ... • Pair at the teacher table for one modelled sort before the group continues independently.	• Ask for a second reason on one debated item (crisp packet or polystyrene) during circulation. • If time, add one more sorted item or a second practical action idea on the Journal page.	• Second sort within recycle: which items are paper-based and which are metal or plastic. • Critique whether the class action truly reduces waste or only shifts it, and suggest one improvement.



Cross-curricular hook

Link to Geography environmental awareness and the Irish plastic-bag charge as a real reduce action pupils already know from shops.

