



School Recycling Guide:

Aim of the Guide: To assist schools with setting up a viable (PET) recycling collection programme

Getting Started

A PET school recycling program is a hands-on, interdisciplinary lesson that educates learners about the environment and how to reduce waste (including valuable PET materials) going to landfill while ensuring personal responsibility and pride is taken for the pristine upkeep of the school grounds.

However the benefits of a well run school recycling program go far beyond the actual school grounds as the surrounding communities can benefit as well from drop off facilities or PET collection drives and since learners are able to transfer and pass on newly learnt recycling behaviour to their families.

DO THIS HOMEWORK FIRST: Before your schools can start on a practical level with a (PET) recycling programme there are four vital steps that need to be completed first and which are described in more detail below before any (PET) recyclables should be practically collected:

1. Identify a **project champion**
2. Set up a **waste management committee** for the school
3. Conduct a **waste audit**
4. Assess and prepare the **recycling location and logistics**

STEP 1: Identify a Project Champion

It is absolutely vital to obtain top-level support from the schools' principal who should at least actively "endorse" the proposed (PET) recycling initiative at his/her school. To obtain buy-in it is useful to highlight and discuss how the proposed recycling programme can generate additional revenue and possibly reduce costs for the school by lowering their disposal costs.

The principle is likely to hand down the actual project champion responsibility to an administrative staff member or a teacher who has the capacity and is passionate enough to oversee the project and



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act as champion for it. The champion will elect suitable candidates for a Waste Management Committee to assist with the day to day activities required to keep the recycling programme feasible and generally successful.

The leading project champion should:

- Take overall responsibility for the project
- Drive the implementation of the project
- Provide training for all involved where and when required
- Conduct regular meetings with the committee
- Keep the governing body and management team informed
- Keep the local media and surrounding community informed on progress, special events and opportunities to become involved.

STEP 2: Set up a “Waste Management Committee”

It is important to ensure that all interested parties (school management, teachers, learners, parents and the local community) buy into the idea of PET plastic recycling at the school and become committed to help it succeed. One of the ways to do this is to include representatives of all those groups in the school’s waste management committee.

This committee is there to jointly drive the project, give multi-stakeholder input and ensure that available expertise is utilised. The committee should ideally include (but need not be limited to) a:

- **Representative from top management:** It would be ideal if the school’s principal could be directly involved as it would ensure the project receives full support from the leadership.
- **Representative from educators:** The committee should include at least 3 educator representatives.
- **Representative from the governing body:** The support from the governing body is crucial for the success of the project.
- **Representative from the administrative side:** A person who has a good overview of the schools finances including key expenditures and can capture earned revenue in a professional and transparent format to be communicated to learners and parents alike to maintain motivational levels high.
- **Learner representative:** This is vital as learners will assist in generating awareness and support amongst their peers.
- **Representative from the school cleaning staff:** Although learners, educators and parents can do a great deal to ensure the success of the project, the support and buy- in of cleaning staff is essential as they are likely to be instrumental in the additional recovery of recyclable materials from waste that ends up erroneously in rubbish bins.

STEP 3: Conduct a Waste Audit



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Before starting the recycling programme, you should know how much PET plastic (mainly beverage bottles) you are **likely to** collect, but also what minimum quantity of you **need to** collect. For most schools you would most likely have to collect more than one type of recyclable materials in order to produce the volumes required for a collection company to come and collect from your school. Therefore you will need to know how much of what is currently ending in your rubbish bins and bags can actually be recycled.

First do your homework to establish the minimum quantities that you need to supply to a recycler before they will collect from your school. Contact local collectors and recyclers. As a start, you could visit [PETCO's list of recyclers](#). You could also visit [this PETCO page](#) for a further list of collection points and buy-back centres.

Second, obtain – with the help of the cleaning staff and administration - the following information to assess whether there is really a financial business case for your school to recover PET bottles and other recyclables:

- What are the main types of waste generated at your school? How much of it is packaging material, and what kind(s) of packaging?
- How much PET and other recyclables (paper, glass, cans) does your school generate per week/month?
- Where does your school produce the most waste (classrooms, rugby field, offices, tuck shop), and what are the key activities linked to the creation of waste materials?
- If applicable: how much of the food and drinks sold at your school's tuck shop results in recyclable materials and non-recyclable waste? You need to know how much of what is generated will need to go to landfill (mostly food waste).
- Are waste items being produced at your school for which you could possibly source alternative materials?

Are there possibilities to work with the local community to collect enough recyclable materials to make your project viable?

STEP 4: Assess and prepare the recycling location and logistics

Now and **ONLY** after you have undergone Step 1-3 (and established that there is the support of a project champion and a motivated committee in place and you know through the waste audit that a (PET) recycling project is feasible for your school) it is time to learn about the space requirements and logistic considerations that need to be taken into account when setting up your school recycling and collection programme.

What do you need?

- **Space** – sufficient, enclosed, undercover and secure space to store the PET and other separated recyclables until the minimum amount is reached for collection (ideally by a local collector who provides a “one-stop-shop” service for all recyclables)
- **Access** – your site should be easily accessible to both the collector and people from the surrounding communities, who could be given permission to drop off recyclables in order significantly to boost your collection volumes and in order for your school to provide a very



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valuable public service. **Note, however,** that this access should not interfere with normal school operations, and should not endanger the safety of the staff and learners.

- **Security** – to prevent vandalism or illegal dumping, you should restrict access to your collection area after hours. It may be necessary to arrange for appropriate security measures such as supervision by staff, volunteers or a security company.
- **Health and Safety** – consider the possible odour (if wet and/or dirty recyclables are included among the materials collected), the effect of insects (bees in particular), keeping the recyclables collection area away from high traffic areas, as well as the possibility of creating a fire hazard. Your school's health and safety officer will have to give an input on these matters.
- **Protection from the elements** – ensure that your material sorting/pre-processing area (if required by collector) and storage area is enclosed and that material collected will not blow around the school when it is windy.
- **Bulk bags** – you will need bulk bags to store recyclables for collection. You can ask your collector to supply you with those if it is part of their service. You could also contact PETCO in this regard.
- **Protective clothing** – ensure that all volunteer staff and other cleaning staff have the necessary protective clothing (gloves in particular if you co-collect other recyclables such as breakable glass bottles in addition to PET bottles).

Growing Your Recycling Revenue

The sale of recyclable materials can become a source of revenue for your school and be used to fund sports tours, books, computers, computer programmes and more. By organizing competitions between classes, year groups and even nearby schools, participation can be increased and revenue increased.

You should acquire a scale so that existing office administrators can do some simple record keeping making sure the collector pays you a fair price for the recyclables you collect. It is also a good idea to choose one or two recyclables next to PET to start your new program (e.g. cardboard and mixed paper). Once your program is functioning smoothly, expand your program to include more recyclable materials. Focusing on recycling one commodity at a time allows you to work out the difficulties that may arise with contractual, collection, sorting and educational components.

The team can create signs or contact local businesses as corporate sponsors and alert the local media of the program. Consider holding a kick-off event at your school site and perhaps tracking and graphing your recycling success to share with your students every month.

Based on the waste audit, the team may suggest revising existing procurement policies. They may request replacing non-recyclable items with ones that can be recycled or re-used. The team can educate students and staff through in class presentations or a school-wide assembly.

Also consider the way you will **communicate about the programme** to **raise awareness**. The recycling team could, for instance do the following:



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- Create signs or posters to alert people to the programme.
- Contact local businesses as corporate sponsors to assist with some of the infrastructure and other items you will need to start the programme.
- Holding a kick-off event at your school when the project starts operating, and alert the local media about the event. Ensure that someone is available to talk to the media and give accurate information about it to the local community.
- Tracking and graph your recycling success and share it on notice boards or at regular assembly meetings with staff and learners every month.
- Based on the waste audit, the waste management committee may suggest revising existing procurement policies. They may request replacing non-recyclable items with ones that can be recycled or reused. The team could educate students and staff about these decisions through presentations in class or at a school-wide assembly meeting.
- Organise competitions between classes, year groups and even nearby schools, could help to increase participation and revenue. Inform the local media about the results of such inter-school competitions.

Recycling Tips

- Check that there is no PVC or PET shrink-wrap label, as this means that the container is not recyclable unless you remove the label first
- Do crush the PET bottles to reduce storage space required but do not granulate or flake the bottles on your school premises
- PET trays and punnets are currently not being recycled on a large scale as not all of them are identifiable and many are made of mixed polymers or with additives, thus making recycling difficult. Check with your collector / recycler upfront if he/she is interested in any other PET material apart from bottles

What is PET plastic?



PET is the short name for **Polyethylene Terephthalate**, the type of plastic labelled with the #1 polymer identification code (in a triangle) on or near the bottom of bottles and containers. It is recognisable as an imprint on containers (transparent, clear and/or tinted or any other solid colour). PET is mainly used for **beverage bottles** for (bottled water, carbonated soft drinks, milk, juice, sports and energy drinks), **bottles** for household, personal care and pharmaceutical products **jars, punnets, tubs and trays** for food items, as well as **sheet and film** for packaging.

In South Africa empty, thrown away PET bottles are collected, then flattened and bundled up into big blocks (baled) and delivered to the recycling plant where they are colour sorted, washed, chopped into smaller particles (granulated), re-washed, and extruded (melted down and then made into long thin strings of plastic). Those strings are then cut into small pieces (pellets), before those are then re-used (as recycled plastics) for making a number of items



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we enjoy every day including fiber filling for our pillows, sleeping bags and winter coats, carpets in cars, fleece shirts but most importantly as recycled PET containers.

Once recycled, from either pre-consumer (such as factory off-cuts) or post-consumer (household) material sources, it is called rPET or Recycled Polyethylene Terephthalate.

Why collect and recycle PET Plastics?

PET is technically 100% recyclable. It is lightweight and strong and can be transported efficiently and is superior compared to other packaging options with regard to its environmental footprint linked to energy demand in production and resulting Greenhouse Gas (GHG) Emissions.

When recycled PET can further greatly reduce fuel use, energy consumption and greenhouse gas emissions. PET recycling creates jobs by providing a source of income and helps to save the planet's virgin resources.

The PET that is removed from the waste stream results in less waste going to landfill sites and reduces the amount of natural resources needed to make certain products, thereby reducing the impact on the Earth and environment. Recycling of PET fits very well into the concept of the Circular Economy, and closed loop thinking which looks at a cradle-to-cradle approach and aims to design waste out of a system by ensuring that waste from one product or process becomes a resource for another. This reduces the need for additional resource use and eliminates waste from the outset.

DID YOU KNOW?

- 1 recycled plastic bottle saves enough energy to power a 60-watt incandescent light bulb for 3 hours.
- Five 2-liter recycled PET bottles produce enough fibrefill to make a winter jacket.
- The energy saved by recycling one plastic bottle will power a computer for 25minutes.
Recycling 10 tons of PET plastic saves as much greenhouse gas emissions as removing more than three cars from

Who is PETCO and how can we support you?

PETCO is the national industry body responsible for managing the PET industry's extended producer responsibility (EPR) in South Africa. Our mission is to grow the collection and recycling of PET bottles after consumer use. We have done this for a decade, and are funded by a voluntary recycling levy paid by industry. We invest all our funds in ensuring and encouraging visible recycling, through:



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- Contracting and financing PET recyclers who collect bottles, process them into rPET in preparation for the manufacture of new products
- Consumer education and awareness (including schools and community groups)
- Training and joint venture projects (including those with municipalities)
- Equipment support and sponsorship (for collectors), and
- Providing guidance relating to design for recycling (for industry).

PETCO offers educational material such as posters, DVD's, and PET collection bags for events that detail the PET recycling process. You can also apply to hire banners to be returned after any specific collection or recycling school or community event.

Contact PETCO for further information

Call toll free:	0860 147 738 (0860 1 is PET)
Email:	info@petco.co.za
Twitter	PETCO_SA
Facebook:	PETPlasticRecyclingSA
Instagram:	PETCO_SA
Website:	www.petco.co.za

Useful contacts

Visit www.petco.co.za for a list of collection points, drop off sites and buy-back centres.

You could also contact some other industry bodies for general assistance or information about other material streams. Here are some of them, but you could also visit PETCO's website to download a fact sheet with useful contacts:

- Institute of Waste Management www.iwmsa.co.za
- National Recycling Forum www.recycling.co.za
- Packaging SA www.packagingsa.co.za
- Recycle Paper ZA www.recyclepaper.co.za/
- Polyolefin Recycling Company (POLYCO) www.polyco.co.za
- Polystyrene Packaging Council (PSPC) www.polystyrenepackaging.co.za/
- ROSE Foundation www.rosefoundation.org.za
- SAVA www.savinyls.co.za
- Tetra Pak www.tetrapak.com/za
- The Glass Recycling Company www.glassrecyclingcompany.co.za
- Collect-a-Can www.collectacan.co.za



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