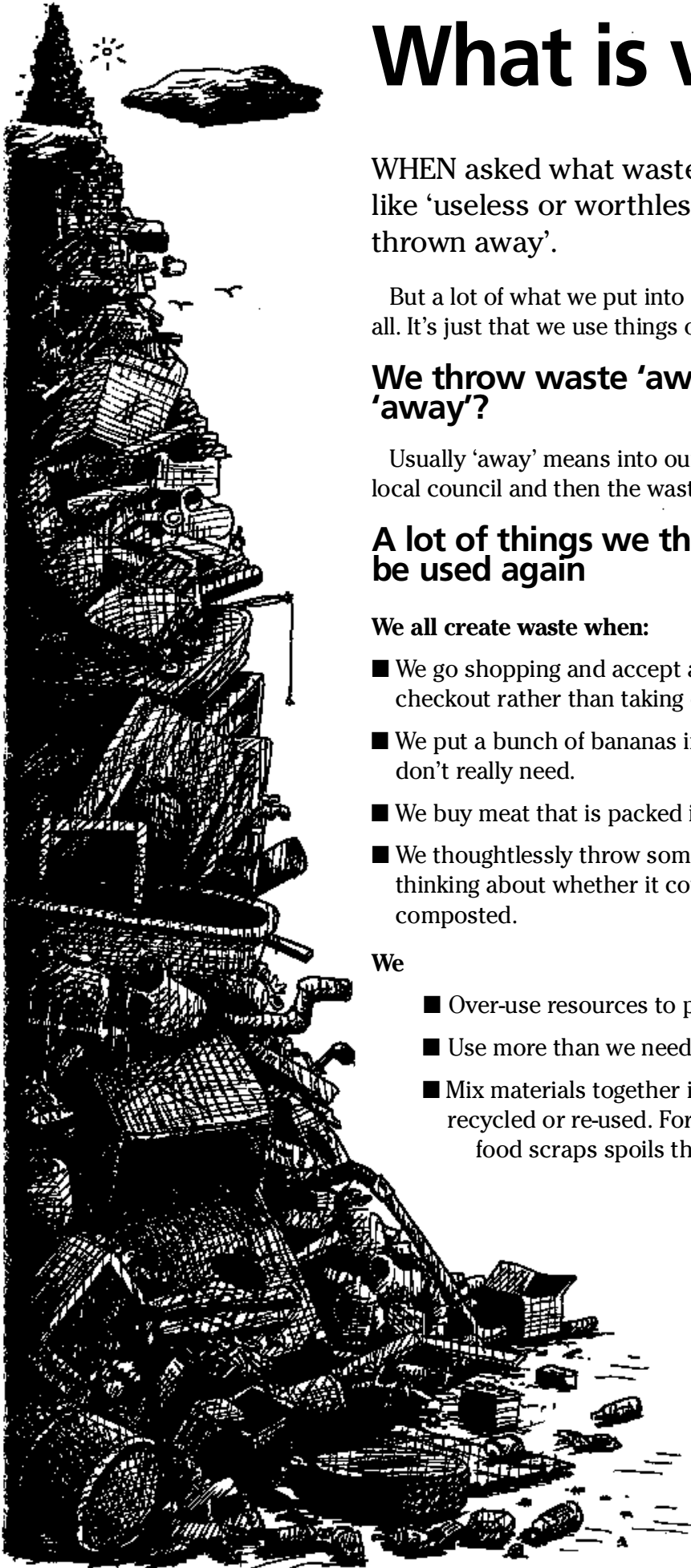




All about waste

This chapter tells you:

- ✓ Why waste is a problem
- ✓ How waste hurts the environment
- ✓ About different types of waste and how much we create
- ✓ How to:
 - avoid
 - re-use
 - recycle
- ✓ How to choose products that create less waste
- ✓ Why recycling alone will not fix our waste problems
 - What else you can do to reduce waste
- ✓ How to save money by avoiding waste



What is waste?

WHEN asked what waste is, most people say things like ‘useless or worthless garbage’, or ‘stuff to be thrown away’.

But a lot of what we put into our rubbish bins is not useless at all. It’s just that we use things once and then throw them away.

We throw waste ‘away’ — but where is ‘away’?

Usually ‘away’ means into our bins, which are picked up by the local council and then the waste is buried in the local rubbish tip.

A lot of things we throw away could easily be used again

We all create waste when:

- We go shopping and accept all those plastic bags at the checkout rather than taking our own string bags or baskets.
- We put a bunch of bananas into a plastic bag — a bag that we don’t really need.
- We buy meat that is packed in foam trays and plastic.
- We thoughtlessly throw something in the bin rather than thinking about whether it could be re-used, recycled or composted.

We

- Over-use resources to produce goods.
- Use more than we need.
- Mix materials together in the garbage bin so they can’t be recycled or re-used. For example, mixing newspapers and food scraps spoils the newspapers for recycling.

Wasteful thinking

Our attitudes to waste are shown in the words we use to describe it. Think about the words we use: refuse, garbage, trash, scrap, rubbish. These words make waste seem useless, dirty or unhealthy.

Ask yourself:

- What do you think about waste?
- Are you concerned about waste, or is it someone else's responsibility?
- Whose responsibility is it?
- What do your neighbours think about waste? What about your friends, family and workmates?

As Earth Workers, you will have the chance to influence how other people think about waste. Your own attitudes will probably change as you read on.



IT'S NOT ONLY the amount of waste we create but also what sort of waste it is.

Many household items such as cleaners and insect sprays contain toxic substances that can harm our health as well as the environment.



Why is waste a problem?

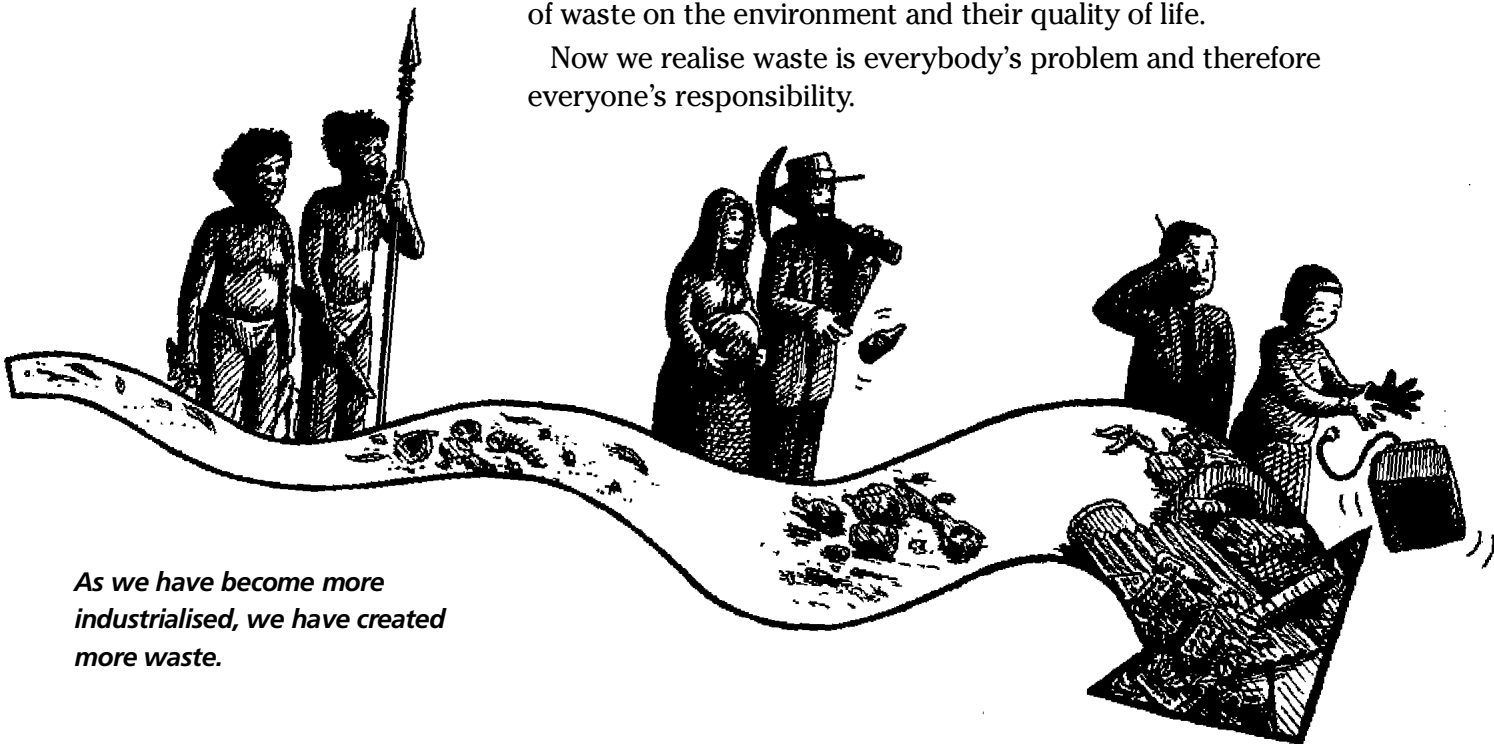
FOR many years people just threw away things they didn't want anymore. But with increasing amounts of waste per person and bigger populations, we can no longer afford to do this.

How waste kept growing

In recent years more and more useful material has been thrown away. We are running out of places to dispose of all the waste. At the same time, people have made it clear they don't want to live next door to landfills.

Suddenly, when faced with plans for new tips, people have become concerned about the waste of resources and the impacts of waste on the environment and their quality of life.

Now we realise waste is everybody's problem and therefore everyone's responsibility.



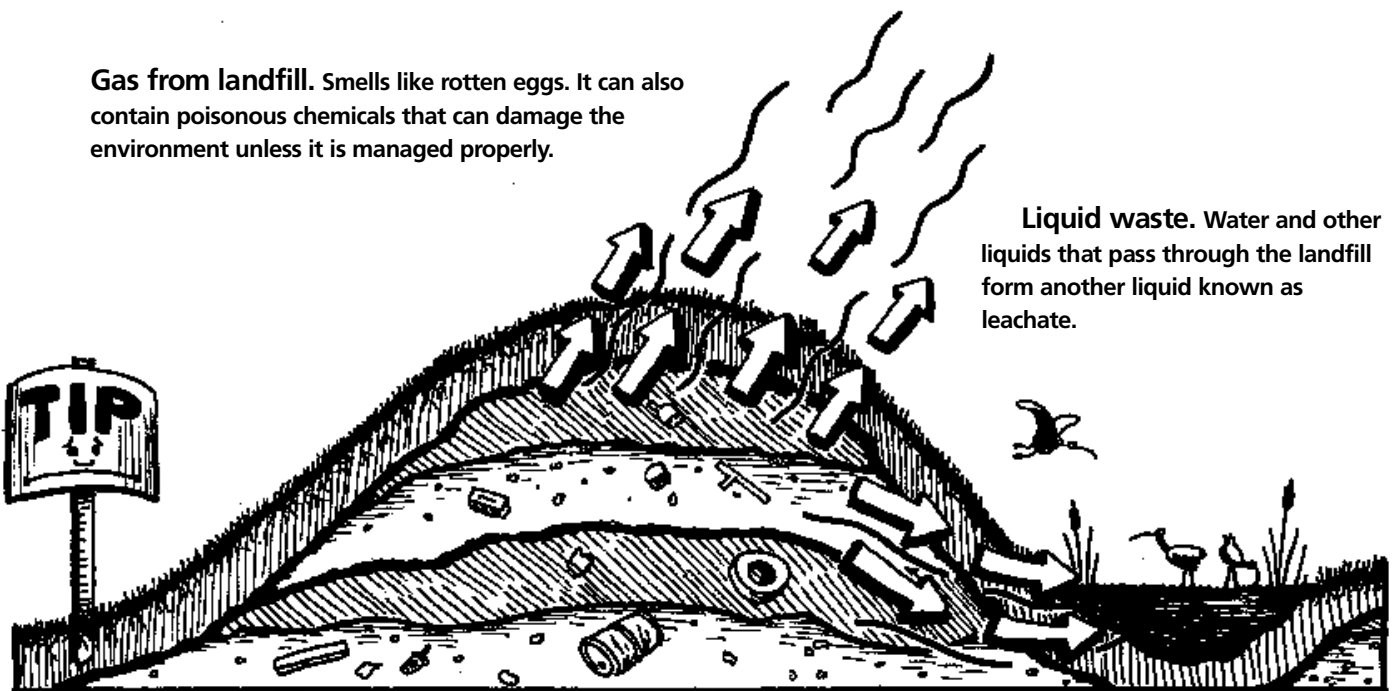
As we have become more industrialised, we have created more waste.

How waste disposal can harm the environment

When waste is sent to landfill, it doesn't just magically go away. It can sit there for years, sometimes for generations, and create more waste in the form of gas and waste water.

Gas from landfill. Smells like rotten eggs. It can also contain poisonous chemicals that can damage the environment unless it is managed properly.

Liquid waste. Water and other liquids that pass through the landfill form another liquid known as leachate.



What will we leave behind for our kids?

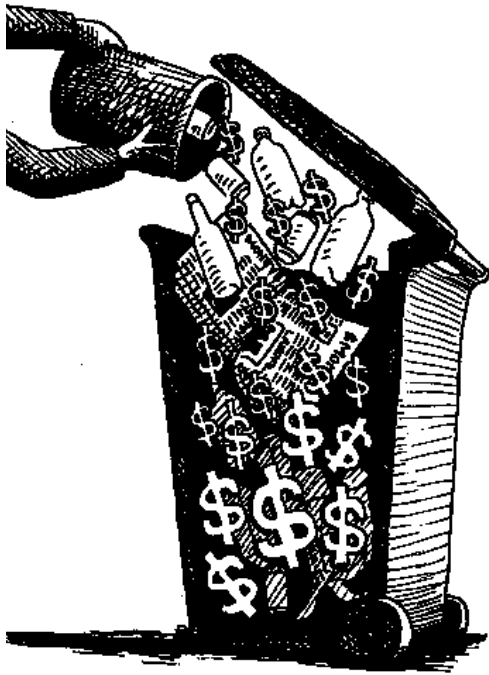
LANDFILLS CAN go on creating gas and liquid waste for 20-30 years after they have closed.

OUR WASTEFUL WAYS mean less natural resources, like forests, are left for our kids to enjoy.



OTHER WORDS used to describe a landfill are:

- rubbish tip
- garbage dump
- waste management centre



Waste costs!

WHAT we put into our garbage bins is collected and then transported to the local tip.

When we do this, we are:

- Throwing useful materials away.
- Throwing money away

Most of the waste in your garbage bin — including plastic, food scraps, paper and cardboard — can be used again, recycled, composted or fed to a worm farm.

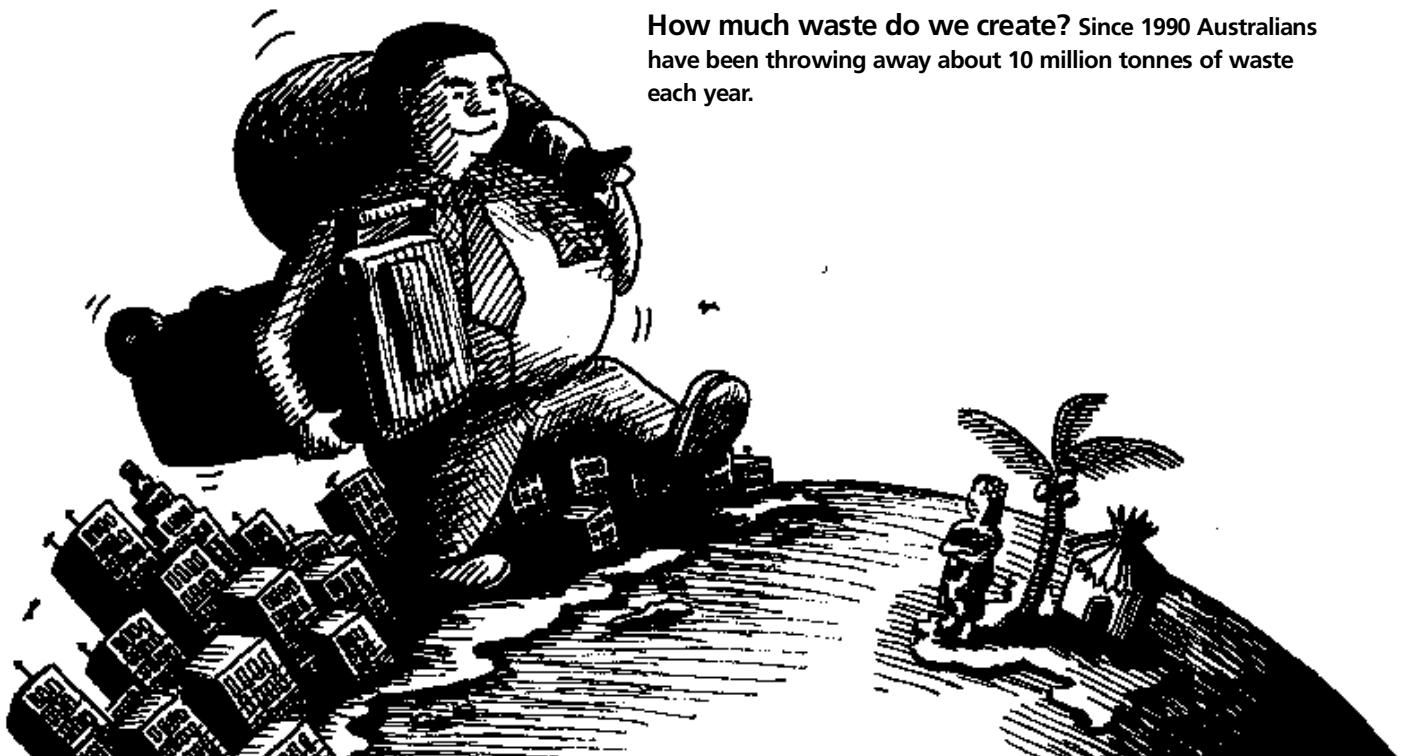
But instead of seeing these things as resources, we use them once and toss them out. Then someone else takes them away and buries them. This is not good for our wallets nor for our planet!

We all pay for waste disposal

In Australia it costs us millions of dollars a year to collect and dispose of all of our waste. It also costs us money to try to fix the damage waste disposal can do to our environment.

And, in the long term, we all pay the cost of using too many raw materials to create more and more new things.

How much waste do we create? Since 1990 Australians have been throwing away about 10 million tonnes of waste each year.



Where does waste come from?

THERE are 3 main sources of waste.
These are:



Household waste

Every Australian creates nearly half a tonne of household waste each year.

Household waste makes up almost half of the solid waste created in this country each year.

How much domestic waste?



- 11% other
- 3% metal
- 6% plastics
- 5% glass
- 19% paper & cardboard
- 56% food scraps & garden waste



Commercial and industrial waste

Industrial waste comes from offices, factories, shops and hospitals. Every year we generate over 350 kilograms of waste for every person in Australia.



Building and demolition waste

The building, construction and demolition industry creates well over a quarter of all solid waste. This includes concrete, timber, metals, and other assorted

building materials.

Two important forms of waste found at home, in commerce, industry, building and demolition are:



Green waste

Green waste comes from the garden and the kitchen. It's stuff like grass clippings, leaves, tree prunings, wood packaging, wood off-cuts, fruit and vegetable scraps.

Green waste makes up about a third of the total waste in NSW. Most green waste is created by households.

Poisonous and dangerous wastes

These make up a very small amount of solid waste. But they are a real concern because they can make people sick and can pollute the environment.

Some common items like car and other batteries contain heavy metals such as mercury, lead and cadmium, which are all poisonous and can cause brain injury in children.

Paints, solvents, lubricating oils and even household cleaners contain toxins that can damage our health and our environment. These types of wastes should never be put into the rubbish bin or poured down sinks or drains. Your council collects them separately.



TRANSFER STATIONS and rubbish tips accept some dangerous household wastes. Your local council can tell you where your nearest disposal facility is, and what it collects.

How the waste in your bin gets to the rubbish tip



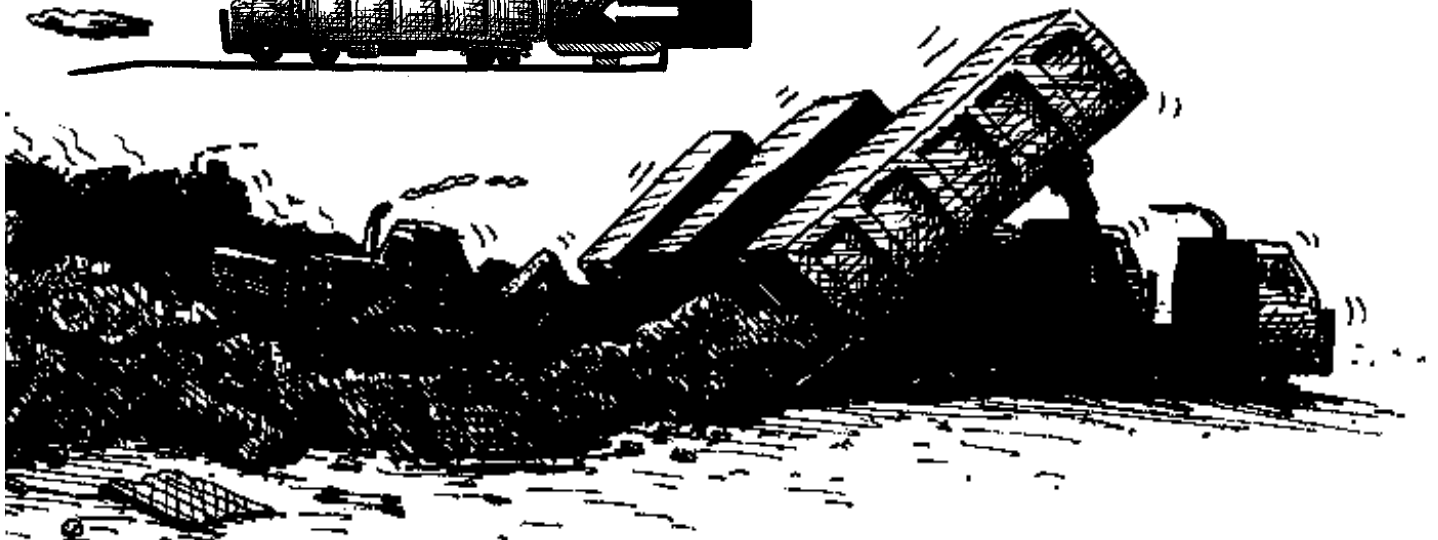
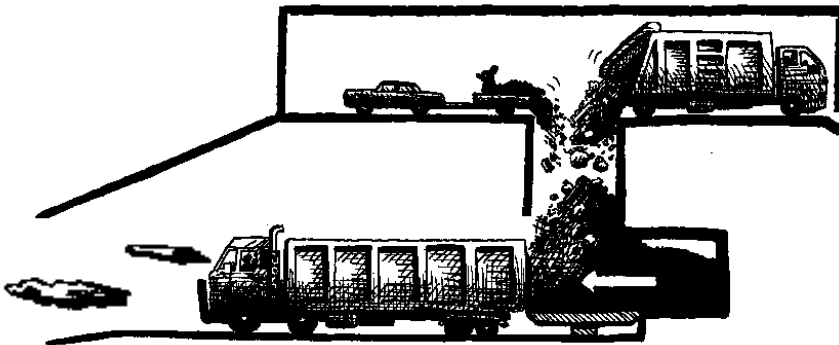
STEP 1: Sort your waste for collection

STEP 2: You put your rubbish out for collection.

STEP 3: Your council collects your waste from the rubbish bin.

STEP 4: In some city councils, the council truck leaves your waste at the transfer station for transport to the rubbish tip.

STEP 5: Waste is taken to the rubbish tip.



How you can avoid making waste

IF YOU want to reduce waste you need to **A – R – R**.

ARR stands for:

AVOID

RE-USE

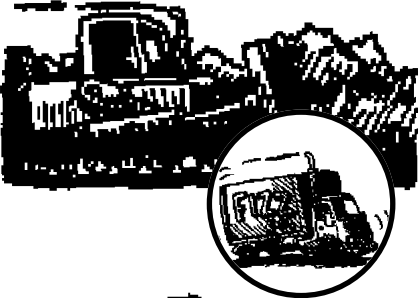
RECYCLE

The best way to reduce waste is to avoid making it in the first place. The next best strategy is to re-use whatever you can. And finally it is important to recycle everything that you can.

- 1. AVOID.** If we use fewer products now, there will be less waste later.
- 2. RE-USE.** It makes more sense to simply re-use an existing product than to spend the time and energy recycling it.
- 3. RECYCLE.** The materials in a used product are broken down and used to make something new.

What happens to a product if we don't avoid-reuse-recycle?

The life cycle of a glass bottle includes:



Resource extraction. Mining the sand, soda and limestone needed to make glass and then transporting these minerals to the factory.

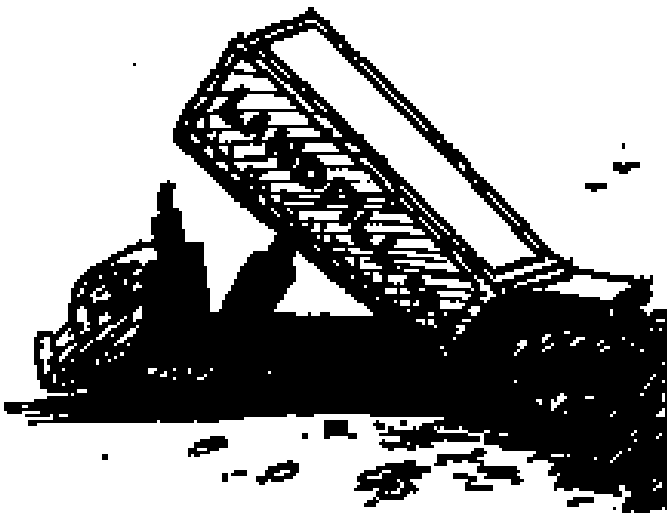


Production. Making the glass by melting these materials, which uses a lot of electricity or gas;



Consumption. The glass is then filled and shipped to the retailer and then onto you – the consumer.

Disposal. After all this you use the contents of the bottle and you are faced with the choice of how to dispose of it.



Landfill. If you haven't put your bottle out for recycling, it will end up at the rubbish tip.



Practical ways you can avoid making waste

Don't just buy, buy, buy – think, think, think

By not buying things we can live without, we reduce the amount we waste and save money, too.

Before you buy anything, think about if you can avoid buying it. Ask yourself:

- Do I really need this?
- Can I make do with a smaller amount?
- Will it last? Can it be maintained, repaired or restored as it gets older?
- Is there a simpler, less wasteful alternative?
- Is it over-packaged? Is there another product with less packaging?
- What are the environmental impacts of my buying this product?

These questions challenge us to think about our buying and using habits. Do I think before consuming, or do I just buy for the sake of buying? Or am I just in the habit of buying these things?

Then think about re-using the item: Ask yourself

- Just because I no longer need it, does it have to become waste?
- Can I sell it or pass it on to someone else who could use it? Could I donate it to a charity op-shop?
- Can I buy it second-hand? If you are about to buy something new, such as a washing machine.
- Can I repair or restore it?
- Is there a long-lasting or re-usable alternative to a throw-away item? For example: buying a battery recharger set, carrying a thermos cup with a lid rather than buying coffee in polystyrene cups, using lunchboxes rather than plastic and tin foil.



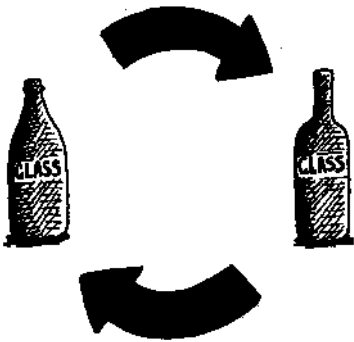
Then think about recycling.

Ask yourself:

- Is it made from recycled materials?
- Is there a recycling collection system for it in my area?
- Can the item be recycled easily, or are the materials mixed and therefore difficult to separate?

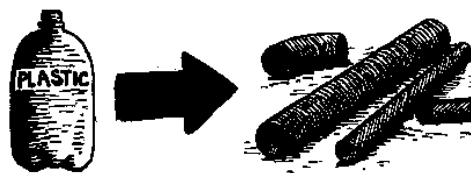


'Closed-loop' vs 'Open-loop' recycling



'Closed-loop' recycling. The best type of recycling is called 'closed-loop' because it doesn't need as many new raw materials. For example, a closed-loop recycling system enables a used green glass bottle to be recycled into a new green glass bottle.

'Open-loop' recycling is when the materials from one type of product are used to make a different product. For example, recycling plastic bottles into plastic drainage pipe. Open-loop recycling is often called 'reprocessing' or 'down-cycling'.



What does “recyclable” mean?

If the word “recyclable” is printed on something you are about to buy, it does not mean it can always be recycled. It depends where you live.

Recyclable simply means that it is possible to recycle the material. It does NOT necessarily mean it is practical or easy to recycle it.

The most common materials that your household can recycle are:

- glass
- aluminium
- paper
- plastic soft drink bottles
- food and garden waste
- steel cans
- scrap metal
- cooking or car oil.

Check with your local council

Problems with recycling

Most people think recycling helps our environment, and have taken it up as a way of life. However, recycling is not the only answer to all our waste problems.

Here’s why:

- **Contamination.** To make new products from old, the material must be clean and contain only one specific material.
For example, if an old plate is crushed up with glass which is going to be recycled into bottles, the crushed plate will cause faults in the glass and the bottles will not form properly.
- **Lack of markets.** Sometimes there is a lot of recycled material around and not enough businesses wanting to buy it. This means that it may not be recycled.
- **High cost.** Recycling is not free. The cost of collecting, transporting and recycling is often higher than the price recycled goods can be sold for.

Saving money by reducing waste

YOU'LL be surprised at how much money you can save as well as reducing your waste.

Here are some examples:

- Most toilet cleaners do little more than change the colour of the loo water and cost you money.
- Small individual packets of chips can cost up to 44% more than the same amount sold in a large packet.
- Salt sold in recyclable cardboard is much cheaper than salt sold in plastic. A 125g plastic bottle of salt costs more than 500g of salt in a cardboard box.
- Tea sold in tea bags can cost up to twice as much as that sold in bulk. You can also buy your coffee freshly ground into your own container.
- Foods like rice, potatoes, sugar and fruit bought in bulk can save money and reduce waste.
- Cleaners can be bought in refill packs, avoiding waste and saving money.

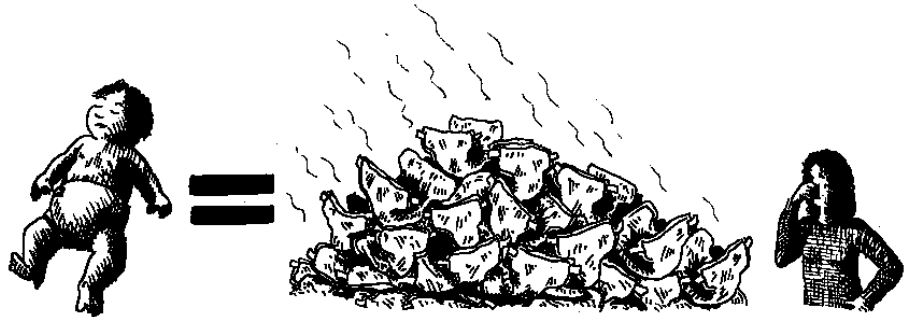
Waste saving case studies

CASE STUDY 1:

Nappies

When you are thinking about which type of nappy to use, remember:

- Nappy wash services cost about the same as disposable nappies.
- New easy-to-use-fasteners and fitted cloth nappies make cloth nappies easier to use than they used to be.
- Washing cloth nappies at home is often the cheapest option.



One baby can use up to 6,000 disposable nappies.

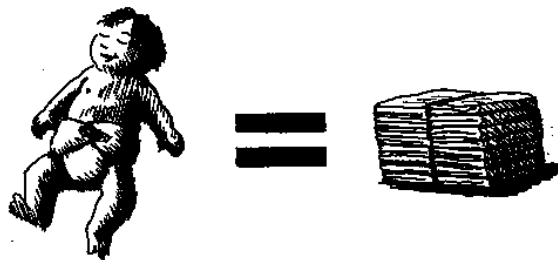


It is important to consider the environmental costs of water, electricity and washing powder as well as the benefits of avoiding waste.

If you decide to use cloth nappies, there are two environmentally-friendly ways of washing them:

1. Scrape off solids, rinse in water and soak in bicarbonate of soda. Then wash in pure soap, rinse with a little vinegar and dry in the sun.
2. Scrape off solids, rinse in water and soak in a napisoak powder. Then rinse in cold water before drying in the sun.

If you find that you have to use disposables sometimes, don't worry. Just try to use as few as possible.



Each cotton nappy can be used hundreds of times and then reused as a rag.

CASE STUDY 2:

Green cleaning

To avoid waste and save money you can use simple cleaning agents such as bicarbonate of soda, vinegar, eucalyptus oil, washing soda, cloudy ammonia.

Most household cleaning can be done with a few simple ingredients:

- bicarbonate of soda, also known as baking soda
- vinegar
- washing soda
- pure soap.

Environmentally friendly recipes for cleaners

- For a general purpose cleaner mix 2 teaspoons of bicarbonate of soda with 1 teaspoon of soap in 1/4 litre of water. Add 2 teaspoons of vinegar or washing soda to cut grease.
- Clean bathroom and kitchen surfaces with pure soap and bicarbonate. Apply with a firm brush.
- If you want to make your house smell good while you clean, put a few drops of eucalyptus or lavender oil into a bucket of water while you mop or put a few drops into your vacuum cleaner bag.
- If possible, tip waste water from your cleaning onto grass rather than down the drain and remember the dust from the vacuum cleaner bag can go into your compost heap.



Many common household items such as cleaners, pesticides, herbicides, batteries, paints, varnishes, oils and solvents are toxic. They can make people sick and damage the environment.

Avoid buying them whenever you can and never put these things in the garbage or wash them down the sink. Your council collects them.