

# KIDS RECYCLING BOOK



Full of facts and games for  
primary school students



How to recycle  
right at home



What can we do  
to recycle more?



Where does your  
recycling go?

Tips on reducing  
your waste

# CONTENTS

1. Let's get recycling!
2. Why is recycling important?
3. Recycling at home
4. What goes in your recycle bin?
  4. Paper and cardboard
  6. Plastics
  8. Glass
  10. Aluminium
  11. Steel
12. What does not go in the recycle bin?
13. Batteries start fires
14. What happens to your recycling after you put the recycle bin out?
16. What is litter?
18. Let's clean up this mess!
20. Recycling activities

## QUICK QUIZ



Using a pencil, **draw a line to match** some of the words used in this book to their meaning

<b>Landfill</b>	Items that are made into new products
<b>Rubbish</b>	Items of rubbish left in an open or public place
<b>Recyclable materials</b>	Gets buried in landfill
<b>Kerbside collection</b>	Bins at the front of your house
<b>Resource recovery</b>	Saves useful resources from going to landfill
<b>Contamination</b>	Can go in your food & garden organics bin or compost bin
<b>Food scraps</b>	Items that do not belong in a bin
<b>Litter</b>	Where rubbish is buried

# LET'S GET RECYCLING!

Recycling uses what we already have to make new products, over and over again, using less energy and saving natural resources.



Recycling is a great way for us to do something good for the environment

We come in contact with recyclables each and every day so it's important to know how to get recycling right. We can recycle at school, home and at work and if we can teach others how to get it right, we can have a really positive impact on the environment.

## RECYCLING AT HOME

Keep a **recycling checklist** in the house which tells you which items belong in the recycle bin. Put the checklist somewhere your family can see, like your fridge or on a wall.



Remember to collect your recyclables in a bin **without** using a plastic bag.

## RECYCLING AT SCHOOL

Collect items you can **recycle**. Check you can recycle them in your classroom bin or ask your teacher for your school's recycling point, otherwise take them home for recycling.



Always put used paper in your classroom paper bins so they can be **recycled**.

In this book we use these **icons** and **colours** to represent each recycling type. Using a pencil, draw a line to match them to their recycling name.



Cardboard

Steel

Plastics

Aluminium

Glass



## TIP

Choosing items at the supermarket that are packaged using recyclable materials means you're an expert recycler!

# WHY IS RECYCLING IMPORTANT?

The choices we make today will have a big impact on the world we live in so it's up to us to recycle right and reduce the amount of waste we create.

Recycling is a great way to protect our planet! It helps make new things without using up natural resources like trees, water, and minerals.

When we recycle more, we reduce the amount of waste that ends up in landfill. Rubbish in landfills rots and makes harmful gases like methane, as well as a liquid called leachate, which can pollute the environment.

## DID YOU KNOW?

About 20 million tonnes of rubbish is sent to Australian landfills each year\*

## RECYCLING REDUCES THE NEED FOR LANDFILLS

By sending less waste to landfill, we can reduce the amount of methane and leachate produced.



What you put in your rubbish bin will be sent to landfill and be buried underground, never to be used again!

## RECYCLING PROTECTS OUR ENVIRONMENT

The more we recycle, the less natural resources we need to make new products.

Check out the natural resources needed to make new products:



Paper and cardboard is made from trees



Plastics are made from crude oil



Aluminium is made from bauxite



Steel is made from iron ore



Glass is made from sand, limestone and soda ash

Apart from trees, all these **raw materials** come from 'non-renewable' resources - a resource that cannot be replaced after it has been used.

# RECYCLING AT HOME



Recycling right saves useful resources from going to landfill.

At home you are provided with two recycling bins. One with a purple lid that is for glass only, and one with a yellow lid for all other accepted recyclables.

The items collected from your recycling bins will be recycled - it's called 'Resource Recovery'.



Write the name of each type of recyclable that belongs in your yellow lid recycle bin

News \_\_\_\_\_  
 \_\_\_\_\_ can  
 \_\_\_\_\_  
 \_\_\_\_\_ bottle  
 \_\_\_\_\_ box  
 \_\_\_\_\_ can

Write the name of each type of recyclable that belongs in your purple lid glass recycle bin

Glass \_\_\_\_\_  
 Glass \_\_\_\_\_

What goes in your yellow lid recycle bin?



# PAPER AND CARDBOARD



Paper and cardboard are such a big part of our households. You can recycle cardboard and paper found in the kitchen, bathroom and laundry.

All these paper and cardboard products **belong in** your yellow lid recycle bin



Newspapers, junk mail & magazines



Food boxes



Flattened packing boxes



Pizza boxes (with no pizza left inside!)



Tissue boxes



Egg cartons



Envelopes (even with windows)

## QUIZ

If one household recycles **1kg of paper and cardboard per week**, how many kilograms would they recycle **every year**?



## DID YOU KNOW?



You don't need to remove sticky tape from boxes when you put out for recycling as it comes off when the cardboard is washed. Just make sure the boxes are flattened



Wire bound books are also recyclable

## DO YOU REUSE PAPER IN YOUR CLASSROOM?



To save resources at school, why not reuse single-sided paper when writing or drawing?

## EVEN PAPER TAKEAWAY BAGS ARE RECYCLABLE!



These paper and cardboard products **do not belong** in your recycle bins



Tissues & napkins



Waxed or food soiled cardboard



Paper towel



Receipts



Takeaway cups



Juice & milk cartons



What goes in your yellow lid recycle bin?



# PLASTICS

Hard plastic bottles and containers



Plastics are such a big part of our households. You can recycle plastic bottles and containers found in the kitchen, bathroom and laundry.

All these plastic products **belong in** your yellow lid recycle bin



Drink bottles



Milk bottles



Ice cream containers



Laundry liquid containers



Yoghurt containers



Bathroom containers



Sauce squeeze bottles



Takeaway containers



**SET YOURSELF  
A CHALLENGE!**

Go plastic free for a month and see how much plastic you can avoid!

## DID YOU KNOW?



You can keep lids on plastic bottles as it's the best way for them to be recycled

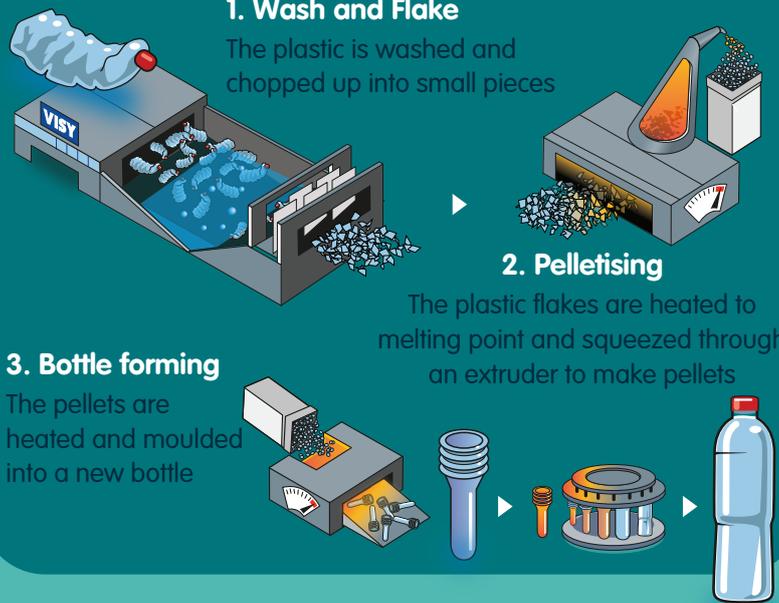


Labels can be left on too

Even 'hand pump' and spray bottles can be recycled!



## PLASTIC BOTTLES CAN BE MADE INTO NEW BOTTLES. HERE'S HOW:



PETE



HDPE



V



LDPE



PP



PS



OTHER

These symbols can be found on most plastic items.

The number in the middle of the triangle tells us what type of plastic it is. It does not tell us whether it can be recycled or not.

These plastic products **do not belong** in your recycle bins



Plastic bags



Plastic food wrap



Foam or polystyrene



Disposable cutlery



Toothpaste tubes

**Soft plastic** items which you can **scrunch in your hand and don't hold their shape** do not go into the recycle bin. Soft plastics can jam the machinery in the recycling sorting process.



Muesli bar & lolly wrappers



Bread bags



Chip & pie packets



What goes in your purple lid recycle bin?

# GLASS

Bottles and Jars

## HANDY HINT

Bottles and jars don't need to be completely spotless. Just make sure to remove as much food as you can and rinse them out before placing in your recycle bin.



Glass containers can be re-used many times and recycled indefinitely. The energy saved by recycling a single bottle could power a washing machine for 10 minutes!\*

All these glass products **belong in your purple lid recycle bin**



Bottles & jars



Sauce & medicine bottles



**LIDS AND LABELS CAN BE LEFT ON!**

Drink bottles



\*<https://recyclingnearyou.com.au/resources/posters>

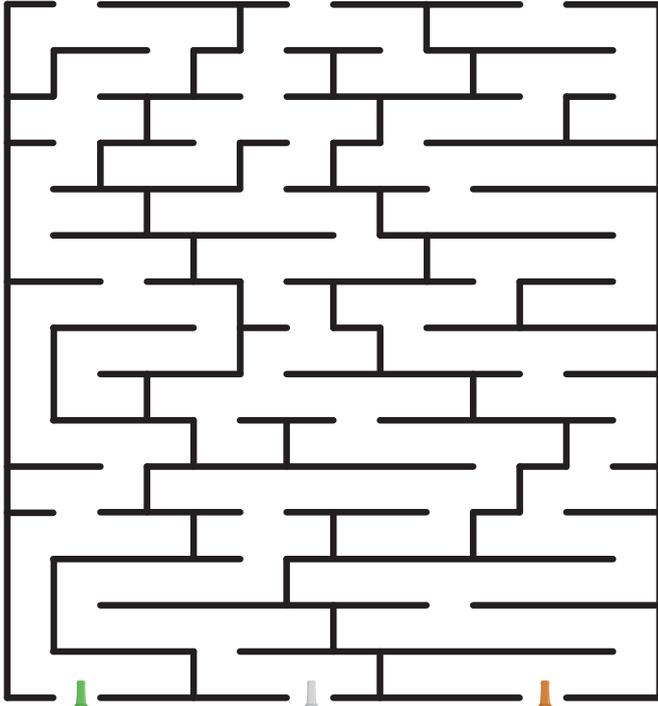
# GLASS COLOURS MATTER

Only green, clear and amber glass is recycled

GREEN

CLEAR

AMBER



**DON'T BAG YOUR RECYCLABLES!**



Don't place your recyclables in plastic bags  
Make sure they are placed into your recycle bin loose so they can be recycled.

**TIP**

Try your best to recycle your glass bottles and jars unbroken

These glass products do not belong in your recycle bins



Drinking glass



Pyrex



Ceramic cups & bowls



Mirror or window glass



Cooking glassware



Light globes



Decorative glass



What goes in your yellow lid recycle bin?



# ALUMINIUM

Drink cans, spray cans,  
trays and foil



Aluminium can be recycled over and over again.  
Each can recycled, saves enough energy to run a TV for 3 hours.\*

All these aluminium products **belong in** your yellow lid recycle bin



Aluminium foil



Sardine cans



Aerosol spray cans



Drink cans



Aluminium trays

Make sure  
that there is  
no spray left  
in the can



## DID YOU KNOW?

Used foil can be recycled  
just scrunch it into the size  
of a tennis ball



What goes in your yellow lid recycle bin?

# STEEL

Food and spray cans

## DID YOU KNOW?

You can leave the labels on your steel cans!



Steel is a very valuable resource. Making steel cans from recycled material uses 75% less energy than producing them from raw materials.\*

All these steel products **belong in** your yellow lid recycle bin



Food cans

Aerosol spray cans

## AEROSOL CANS NEED TO BE EMPTY!

Make sure that there is no spray left in the can



## NO NEED TO RINSE OUT FOOD CANS!

Just ensure they are as empty as possible



\*<https://recyclingnearyou.com.au/steel-cans>

# WHAT DOES NOT BELONG IN YOUR RECYCLE BIN?

Lots of things can be recycled, just not in your household recycling bin.



**NO RECYCLABLES IN PLASTIC BAGS**



**NO SOFT, SCRUNCHY PLASTIC BAGS AND FOOD WRAPPERS**



**NO BATTERIES OR LIGHT GLOBES**



**NO ELECTRICAL ITEMS**



**NO GARDEN CLIPPINGS**



**NO FOOD SCRAPS**



**NO CLOTHING, SHOES OR FABRICS**



**NO POLYSTYRENE**



**NO TOYS**



**NO CERAMICS OR GLASSWARE**



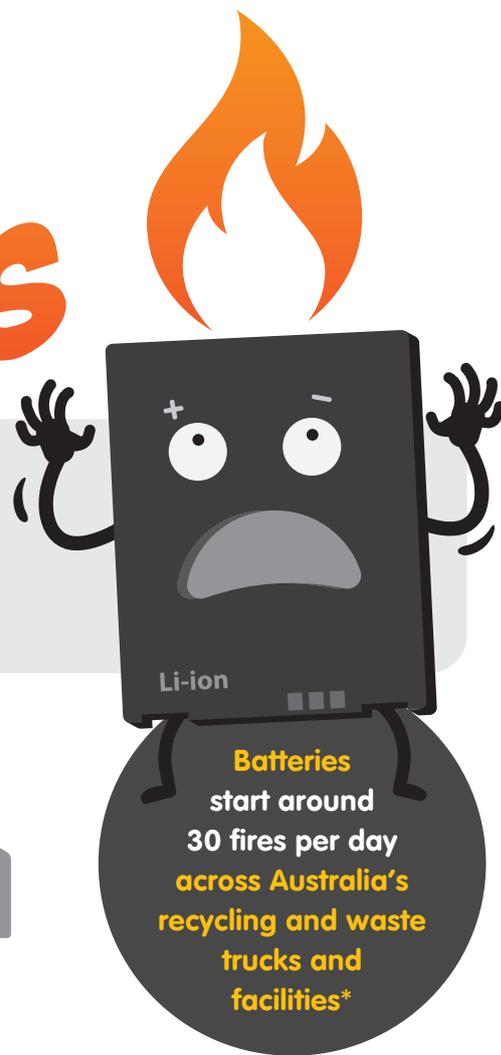
**NO TAKEAWAY CUPS OR CARTONS**

**REMEMBER**  
If you are not sure whether something should go in the recycling bin, check with your local council.



# BATTERIES START FIRES

Batteries and electronic items with batteries should never go into any household waste or recycling bin. When you put batteries in the bin, they can cause fires that pollute the environment and harm workers.



## What can happen?

When the collection trucks empty your bins, everything inside the truck is mechanically squashed together to make space for the next collection.

When squashed, the elements that are inside the batteries change in temperature and get hot - so hot that they can start fires.

These fires pose a significant risk to workers, as well as damaging or destroying trucks and infrastructure.

## What can you do?

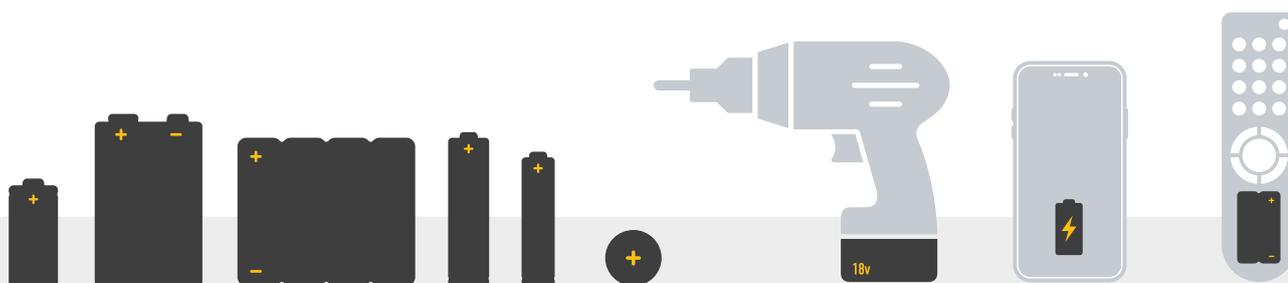


- 1 Collect old household batteries in a plastic tub or cardboard box and store away from babies - batteries are very harmful if swallowed.



- 2 To safely dispose of batteries or items containing batteries, you will need to take them to a disposal point.

Check with your local council or visit [recyclemate.com.au](https://recyclemate.com.au) to find one near you.



\* Australian Council of Recycling (ACOR) and the Waste Contractors and Recyclers Association of NSW (WCRA) <https://mailchi.mp/1ff8ad95488/acor-wcra-batteries>

# WHAT HAPPENS TO YOUR RECYCLING

## STEP 1 COLLECT AND SORT



1

### KERBSIDE PICK UP

At your home, a **recycle truck** picks up the recycle bin from outside your house and empties it into the truck.



2

### MATERIAL COLLECTION

Material is delivered to a **Visy Materials Recovery Facility** where a front end loader pushes the material onto the conveyor belt.



3

### MANUAL SORTING

The material travels along a **conveyor belt**, which passes by a number of **manual sorters** who remove any obvious contamination.



6

### THE MAGNET

A **magnet attracts** the steel items such as food cans, and separates them from the rest of the material.



7

### AIR CLASSIFIER

This machine projects a **continuous blast of air** that blows low density, light weight plastics, aluminium and paper up while the bottles fall downwards.



8

### EDDY CURRENT

A process called Eddy Current, uses a **magnet to eject aluminium** such as soft drink cans, by repelling it off the conveyor belt down a chute.

## STEP 2 RECYCLING PROCESS

Once the recyclables are separated, they are sent for recycling. Recyclables can be used to manufacture new packaging and other products.



PAPER REELS



PLASTIC PELLETS

## STEP 3 MANUFACTURING PROCESS

New products can be manufactured using recyclables.

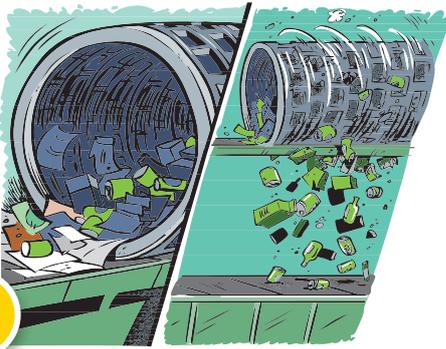


New paper and cardboard



New plastic bottles and containers

# AFTER YOU PUT THE RECYCLE BIN OUT?\*



4

## THE TURNING TUNNEL

It enters a **trommel**, which is like the inside of a constantly turning washing machine with large holes so products such as plastics, glass and metals **drop down** to a lower conveyor belt, leaving paper and cardboard to travel through the trommel.



5

## BOUNCING TRAMPOLINE

The paper passes over an **inclined conveyor belt** that vibrates. The heavy items bounce and fall back down the bouncing trampoline and the paper, which doesn't bounce makes it over the top.



9

## THE PERFORATOR

The plastic containers continue their journey until they reach the perforator - which **punctures and flattens** plastic containers by using a series of spikes and spindles.



10

## OPTI-SORT

After being flattened, the plastics travel through **infrared light** to detect the type of plastic and **a jet of air transports** the plastics into separate streams.



11

## BALES

Each stream is **compressed and baled** into a large cube which is then distributed to various sites to be recycled into new products!



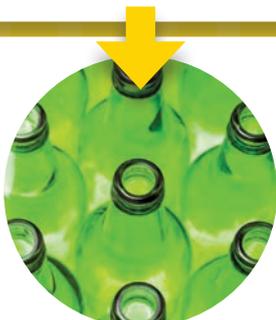
GLASS CULLETT



ALUMINIUM COILS



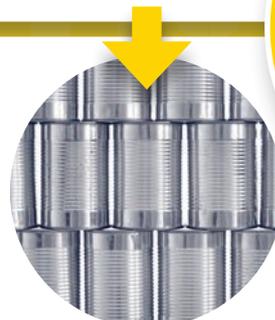
STEEL COILS



New glass bottles and jars



New aluminium drink cans



New steel food containers

Visy takes your paper, cardboard, plastic, glass and aluminium recyclables and makes them into new products that contain recycled content. We call this a 'circular economy'.

# WHAT IS LITTER?



**Litter is small items of rubbish which are left in an open or public place. Illegal dumping refers to larger items of waste.**

Not everyone intends to litter, for example the waste that is thrown into a public bin might miss and fall on the ground. Other actions are more deliberate, but there are small things that we can all do to reduce littering and dispose of waste correctly, avoiding the cost and damage that litter and illegal dumping cause.

## FIVE (NOT SO FUN) FACTS ABOUT LITTER

1. People are more likely to litter in areas that are already littered
2. 95% of litter on our beaches comes from suburban streets through the stormwater system
3. Litter can cause flooding by blocking the stormwater system
4. Litter harms marine life by polluting their habitat, being mistaken for food, and trapping or injuring them
5. Litter can be a fire hazard (e.g. lit cigarettes thrown from vehicles) and a health hazard (e.g. broken glass, needles and syringes)

## WHERE DOES LITTER GO?

Litter is washed down storm drains by the rain



Storm drains empty into nearby creeks and rivers



Rivers flow into bays and the ocean

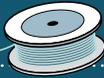


### DID YOU KNOW?

Australians use more than six billion plastic bags per year. Tied together they would stretch around the world 42 times.

# HOW LONG UNTIL IT'S GONE?

Wow! Look how long it takes these items to break down in the ocean!

Newspaper		Fruit		6 WEEKS
Drink cartons		Cardboard		2 MONTHS
		Cotton String		3 MONTHS
		Plywood		1 YEAR
Socks				3 YEARS
				5 YEARS
Cigarette butts		Plastic shopping bag		20 YEARS
		Polystyrene tray		60 YEARS
Plastic milk bottle				100 YEARS
		Aluminium cans		200 YEARS
Plastic yoke				400 YEARS
		Plastic bottles		450 YEARS
		Nappies		475 YEARS
		Fishing line		600 YEARS
Glass bottles				NEVER

## LOOK AFTER YOUR ENVIRONMENT

Any litter you or someone else throws on the ground can end up in our waterways.

By keeping the land clean you help keep the ocean clean too.



Put your rubbish in the bin. If the bin is already overflowing, take your rubbish with you.



Safely pick up some rubbish when you go for a walk on the beach, in the park, in your neighbourhood or along waterways.



Reduce, Reuse and Recycle as much as you can!



# LET'S CLEAN UP THIS MESS!

**Over 7 million tonnes of plastic enter the ocean every year - that's 8 million pieces per day. This is three times as much rubbish as the annual weight of fish caught.**

In Australian waters, you can find anything from a few thousand to more than 40,000 pieces of plastic per square kilometre.

Objects of any size can end up in the ocean if not disposed of correctly. Toothbrushes, fridges, shoes, bottles, packaging, furniture, fishing gear, toys and much more have been found.

About three quarters of these objects are plastic, often broken up into small fragments, and some almost invisible. These are called microplastics. Marine animals can eat microplastics, and it can make them very sick.

## THE TOP LITTER ITEMS ON AUSTRALIAN BEACHES ARE:



Polystyrene



Cigarette butts



Fishing line



Plastic bags



Plastic bottles



Aluminium cans



Food packaging



# TOGETHER WE CAN MAKE A DIFFERENCE!



Use a reusable drink bottle instead of plastic bottles



Compost food scraps



Buy recycled and reusable stationery



Bring reusable shopping and produce bags to the supermarket

## THE LESS RUBBISH WE PRODUCE THE LESS LITTER IN THE OCEAN



Say no to balloons, blow bubbles instead!



Buy and store food in glass jars

To reduce rubbish avoid buying or using single-use items such as plastic bottles or bags, disposable plates and cutlery or products wrapped in plastic.

Reuse plastic bags or bottles until they wear out and repair broken items instead of buying new ones. Simple alternatives help reduce our plastic consumption.



Bring a reusable lunch box



Use reusable plates and cutlery for picnics

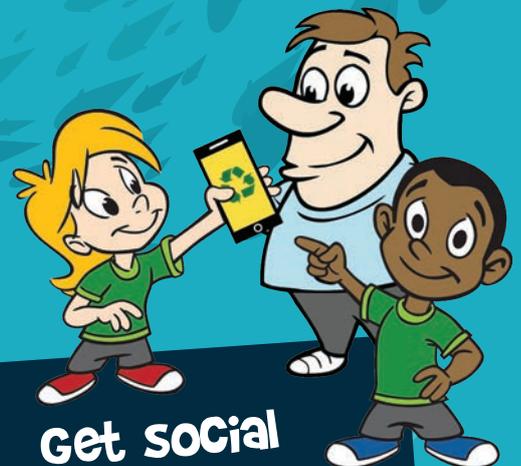


Compost dog waste or put it in the rubbish bin



### Get involved

Participate in **Clean Up Australia Day**, regular litter pick up groups such as beach litter patrols, or organise your own clean up day at the school or local area.



### Get social

Help educate your friends and family on what happens to litter and how to prevent it, for example through talking to people and social media.

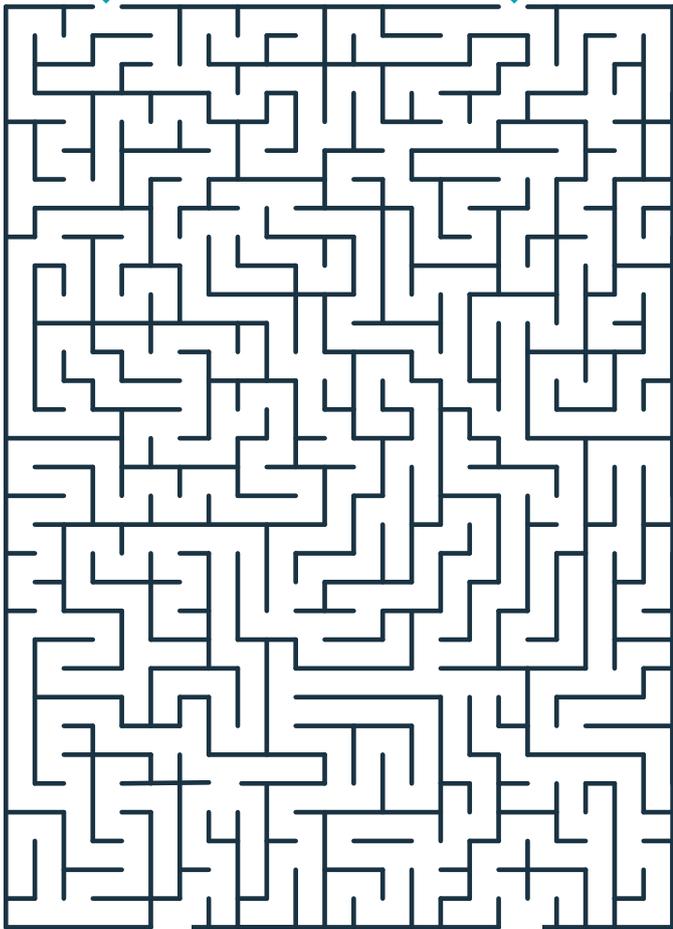
# RECYCLING ACTIVITIES



It's time to test what you have learnt!

## BIN IT RIGHT!

Which bin do these items belong in?



## MEMORY TEST

Put a cross through the items below that **DO NOT** belong in your recycle bins



# QUESTION TIME

1. Do plastic bottles and containers belong in your yellow lid recycle bin?

Yes  No

2. Recyclables placed in plastic bags, when placed in your recycle bins, could end up in landfill?

True  False

3. Which of the following items should we **KEEP OUT** of our recycle bins?

- Plastic bags
- Polystyrene cups and trays
- Garden clippings
- All of the above

4. Lids and labels can be left on plastic bottles when placed into the yellow lid recycle bin?

True  False

5. Aerosol cans must be empty before placing in your yellow lid recycle bin?

True  False

6. Which of the following items belong in your yellow lid recycle bin?

- Plastic bottles
- Pizza boxes
- Plastic bags
- Aerosol cans
- Paper napkins



# WORD FIND

Do you have a keen eye for finding words?

D	H	E	V	J	P	I	G	W	A	S	T	E	K	R
S	D	N	C	I	L	T	J	M	E	J	D	H	C	E
U	B	V	L	H	A	F	S	R	E	U	S	E	N	D
S	K	I	U	I	S	T	R	E	E	S	Y	L	B	U
T	E	R	N	B	T	G	K	C	X	N	R	C	P	C
A	A	O	P	T	I	U	E	Y	Q	E	E	A	A	E
I	L	N	F	G	C	S	F	C	E	W	Q	R	N	D
N	U	M	O	R	A	C	F	L	Z	S	D	T	G	M
A	M	E	G	N	T	A	P	E	W	P	F	O	L	Y
B	I	N	W	E	Z	N	J	V	O	A	P	N	A	C
L	N	T	O	L	R	S	W	P	A	P	E	R	S	T
E	I	Y	H	T	U	M	A	Q	W	E	V	I	S	Y
X	U	I	Q	T	S	Y	T	W	L	R	D	I	U	P
S	M	R	V	O	X	J	E	V	K	H	O	N	A	K
C	A	R	D	B	O	A	R	D	C	G	R	E	E	N

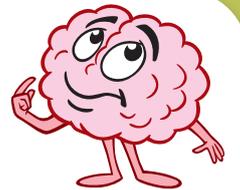
ENVIRONMENT  
SUSTAINABLE  
WATER  
TREES  
VISY  
ENERGY  
PAPER

BIN  
PLASTIC  
CANS  
CARTON  
REDUCE  
CARDBOARD  
BOTTLE

REUSE  
RECYCLE  
ALUMINIUM  
GREEN  
WASTE  
NEWSPAPER  
GLASS

# DO YOU REMEMBER..?

What are these five recyclable materials made from?



1. \_\_\_\_\_ is made from trees
2. Plastics are made from \_\_\_\_\_ oil
3. \_\_\_\_\_ is made from bauxite
4. Steel is made from \_\_\_\_\_ ore
5. \_\_\_\_\_ is made from sand, limestone and soda ash

# LET'S ALL RECYCLE RIGHT!

Let's all recycle right by colouring in the **items that do not belong** in your recycle bins in **red**. You can then colour in the rest of the picture in whatever colours you like.

