



TEACHERS' NOTES

RECOMMENDED FOR

Upper primary and lower secondary
Ages 8+

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KEY CURRICULUM AREAS

- **Learning areas:** English, Science, Humanities & Social Sciences, the Arts, Technologies, STEM
- **General capabilities:** Ethical understanding, critical and creative thinking, literacy, personal & social capability, intercultural understanding
- **Cross-curriculum priorities:** Sustainability

REASONS FOR STUDYING THIS BOOK

- To learn about the environment – key topics including war on waste and climate change.
- To learn about environmental challenges and successes, and to prompt readers to ask questions about how our actions make an impact on the planet.
- To empower young readers to act now for the environment and the future.
- To use the information at the start of each chapter, and the Good News stories that follow, as a springboard for class discussions and activities that address environmentalism at local, national and global levels.

THEMES

- Circular economy
- The environment
- Recycling
- Nature and the oceans
- Understanding waste
- Renewable energy
- Plastics

PREPARED BY

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Now for the Good News Planet Ark

PLOT SUMMARY

With so much bad news hitting the headlines, it's time for THE GOOD NEWS! And lots of it.

Discover all the amazing things people are doing to create a greener future for us all and learn some top tips and helpful hints for ways YOU can help save our planet, too.

ABOUT THE AUTHOR

Planet Ark is the Australian environmental powerhouse behind National Tree Day and many other positive initiatives working towards a greener world.

Established in 1992, Planet Ark is one of the Australia's most respected and trusted environmental organisations, focused on solutions and making positive environmental actions accessible to everyone. Their goal is to build a better world – one where humans not only live in balance with Nature, but help it to thrive.

KEY STUDY TOPICS

Now for the Good News is split up into five chapters that cover key aspects in understanding what it means to be Earth-friendly. Each chapter lays out the problems and introduces the science behind them, and then showcases what is already being done to start addressing these problems – and outlines what still needs doing to inspire young readers to pick up the baton and do their bit to help save our planet.

CHAPTER 1: BLUE PLANET

Questions

1. Read pages 30-31 about Aussie schools taking action. Does your school take part in any of these waste-reducing activities? How might you help your school to implement its own war on waste?
2. On pages 32-33, you can learn about 11-year-old Ned Heaton and his determination to reduce plastic waste in the ocean one toothbrush at a time by finding an alternative material to plastic – bamboo. Can you think of any other everyday items that are made from plastic and are being replaced with a more eco-friendly material? Make a list.

Activities

1. Plan and carry out a Nude Food Day. See activity sheets on pages 5-7.



2. Do an inventory of your bathroom at home and make a list of the plastic items in there. Are there

any that could be replaced with non-plastic alternatives?

CHAPTER 2: THE POWER OF NATURE

Questions

1. Find out whether you have loamy, clay or sandy soil in the school grounds. Dig out some soil and put it on a tray for analysing and identifying whether it is wet or dry, compact or loose, sticky or rocky, and whether there is any evidence of insect life.

Activities

1. Create a class composting bin. See activity sheets on pages 8-10.

CHAPTER 3: THE HUMAN CYCLE

Questions

1. Can you identify recyclable and non-recyclable items around the classroom?
2. Do you know how each part of a product can be recycled? For example, bottle tops, soft plastics, electronics, stationery etc.

Activities

1. Carry out a waste audit. See the activity sheets on pages 11-12. Where is most waste found on the school grounds? Brainstorm ideas for how that waste might be reduced.
2. Create some sustainable artwork using the waste from your audit. Hint: bottle tops can be a colourful material to use.



3. Play the learn your recycling labels game. See activities on pages 13-16.

CHAPTER 4: SOCIAL INNOVATION

Questions

1. Discuss whether kids and their families use any Container Deposit Schemes such as for pocket money, or whether they have access to kerb-side recycling in which convenience and ease is prioritised.



2. Discuss the idea of food miles and sustainable eating after reading pages 108-109.

Activities

1. Draw your most elaborate ideas for an imaginary food-scrap challenge.
2. Create a diary of your day from when you got up this morning to track when and how often you used electricity. Can you make a separate list of all the different products you used that were powered by electricity?
3. Get involved in Planet Ark's [National Tree Day activities](#), and find lesson plans ready to go. Remember, at Planet Ark, every day is national tree day!
4. Celebrate National Tree Day by doing some leaf rubbings – see the activity on page 18. Can you identify which tree each leaf is from?

CHAPTER 5: THE FUTURE

Questions

1. There are many different ways to become more sustainable in our day-to-day lives. Sometimes, it's simply about the choices we make, so educate yourself and help save the planet one day at a time. Be it walking or riding your bike to school, or choosing stationery made from recyclable materials, the options can be simple and endless. Find out what more you can do at [Planet Ark's sustainable school hub](#).

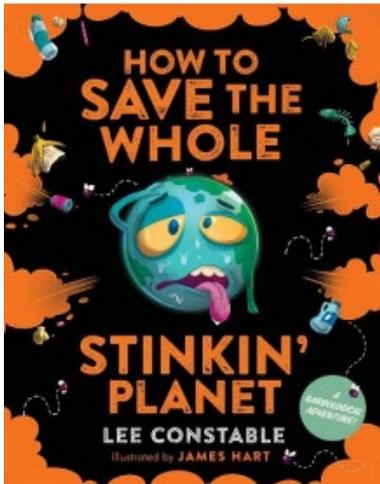


Activities

1. Using the information on pages 126-129, design your own transport that is fuelled by renewable energy. Remember what you've learned from other chapters, that there are all sorts of renewable energy, including wind, solar and even using poo as fuel! Have fun!



FURTHER READING FROM PENGUIN RANDOM HOUSE AUSTRALIA



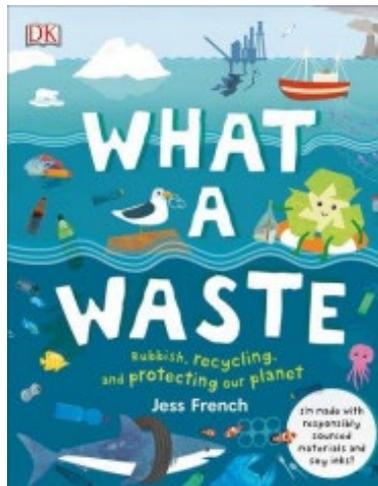
How to Save the Whole Stinkin' Planet
by Lee Constable

How to Save the Whole Stinkin' Planet will take you on a garbological adventure like no other. From diving into the rubbish bin and delving around in the landfill, to rummaging through the recycling and digging about in compost.

As a waste warrior in training, you will earn points and badges as you work your way through each chapter, completing activities, DIYs and eco-experiments. Whether you are conducting your own bin audit, creating a landfill model or making a mini compost heap – all this waste warrior training will be enhancing your understanding of waste management and the impact our household rubbish is having on the planet.

Lee Constable is the host of *Scope*, Network Ten's science and tech show for kids aged 7–13.

[Teachers' notes available.](#)

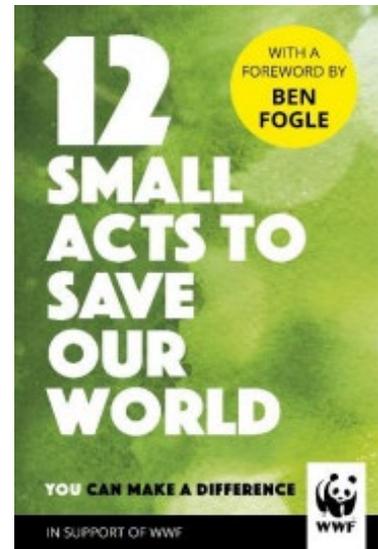


What a Waste
by Jess French

Everything you need to know about what we're doing to our environment, good and bad, from pollution and litter to renewable energy and plastic recycling.

This environmental book will teach keen young ecologists about our actions affect planet Earth. Discover shocking facts about the waste we produce and where it goes. Did you know that every single plastic toothbrush ever made still exists? Or that there's a floating mass of rubbish larger than the USA drifting around the Pacific Ocean?

It's not all bad news though. As well as explaining where we're going wrong, *What a Waste* shows what we're doing right! Discover plans already in motion to save our seas, how countries are implementing schemes that are having a positive impact, and how your waste can be turned into something useful. Every small change helps our planet!



12 Small Acts to Save Our World
by WWF

It's easy to feel like we can't make a difference. But small, easy actions, if taken by enough people, can move mountains – and save planets.

Written in collaboration with leading environmental experts from WWF, this short book provides simple changes we can all make to our everyday lives, from morning to night.

These aren't the only things you can do. Nor are they things you have to do. But these 12 small acts are basic steps anybody can take, and if even one of them sticks, our children will inherit a better world.



ORDER FORM

TITLE	AUTHOR	ISBN	SCHOOL YEAR	RRP	QTY	TOTAL
Now For The Good News	Planet Ark	9780143779582	5+	\$19.99		
How To Save The Whole Stinkin' Planet	Lee Constable	9781760890261	3-6	\$19.99		
What A Waste		9780241366912	2-4	\$19.99		
12 Small Acts to Save Our World	WWF	9781780899282	5+	\$29.99		
TOTAL						

PLEASE NOTE THAT PRICES ARE RECOMMENDED RETAIL ONLY AND MAY HAVE CHANGED SINCE THE TIME OF PRINTING. PRICES ARE GST INCLUSIVE.

<p>NAME: _____</p> <p>SCHOOL: _____</p> <p>ADDRESS: _____</p> <p>STATE: _____</p> <p>POSTCODE: _____</p> <p>TEL: _____</p> <p>EMAIL: _____</p> <p>ACCOUNT NO.: _____</p> <p>PURCHASE ORDER NO.: _____</p>	<p>PLEASE SEND ORDER FORMS TO YOUR LOCAL EDUCATION SUPPLIER.</p>
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Ch 1: BLUE PLANET

PLAN A NUDE FOOD DAY

A nude food day is a day where your lunch has no waste packaging. And so instead of snacks that are individually wrapped in plastic, or drinks that come in boxes and cans that you can't use again, bring in food that is nude. That doesn't mean always choosing fruit over chocolate. If you buy a large bar of chocolate and break it up into small pieces for different days, that would still be a nude food day in your lunchbox.



ACTIVITY A

Not all packaging is waste-free

Here are some pictures of different ways lunches can be packaged. Write down which packaging belongs in which category.

<p>1. Aluminium can</p> 	<p>2. Lunchbox</p> 	<p>3. Apple core</p> 	<p>4. Ziplock bag</p> 
<p>5. Thermos bottle</p> 	<p>6. Banana peel</p> 	<p>7. Chips packet</p> 	<p>8. Plastic bottle</p> 

REUSABLE

COMPOSTABLE

SINGLE USE

RECYCLABLE





TIPS FOR WASTE-FREE LUNCHES

Waste-free lunches contain only items that are eaten, composted or recycled. They don't contain wrappers or packaging that will be thrown in the rubbish bin.

EXAMPLES OF LUNCH ITEMS WITH WASTE

-  Sandwich in disposable cling-wrap or plastic sandwich bag
-  Chips or pretzels in a plastic/foil packet
-  Juice in a squeeze pouch, with plastic straw
-  Yoghurt in squeeze pouches or plastic 'shot' bottles
-  Individually wrapped muesli bars
-  Pre-packaged fruit salad in a small plastic tub or tin
-  Pre-packaged 'snack pack' of crackers and cheese spread
-  Individually wrapped confectionary bars or cakes
-  Individually wrapped cheese sticks/strings
-  Disposable cutlery
-  Paper serviette

EXAMPLE OF ITEMS IN A WASTE-FREE LUNCH

-  Sandwich in a snug-fitting reusable container
-  Snacks in a reusable container
-  Drink in a reusable and resealable bottle, filled at home from a bulk container
-  Yoghurt in a small reusable container, filled at home from a bulk container
-  'Trail mix' in a reusable container
-  Whole fruits without packaging or fruit pieces in reusable containers
-  Raw/salad vegetables (eg. carrots, celery, cucumber) with small container of dip
-  Muffin, fruit bread or biscuits in a reusable container
-  Sliced cheese and crackers in a reusable container
-  Durable cutlery that is designed to be washed and reused
-  Washable cloth napkin



Ch 1: BLUE PLANET - REDUCING WASTE



ACTIVITY

Comparing packaging for bulk and single-serve

For this activity

- a weighing scale
- a 2 litre drink carton (or similar)
- as many single-serve drink containers (e.g. foil pouches or poppers) as are equivalent in volume to the large carton

Ask the students to weigh the large container, then the smaller containers all together. Ask them to compare the amount and type of packaging in each.

The smaller containers will collectively weigh more than the larger container as there is more packaging in total. Ask students to talk about the differences in the packaging in terms of resource use and recycling. Which option would fill up a recycling bin faster?



ACTIVITY B

Large packets, individual packets - what's the difference?

A reusable container or silicone bag is a good way to bring snacks to school. We can fill them up from larger packets at home.



DID YOU KNOW?

There is less packaging in one large bag of snacks...

... than in many small bags of snacks.



Ch 2: THE POWER OF NATURE – COMPOST BIN

COMPOSTING AT HOME

Composting your food and garden scraps is one of the easiest ways to reduce your greenhouse gas (GHG) emissions as well as feed your garden.

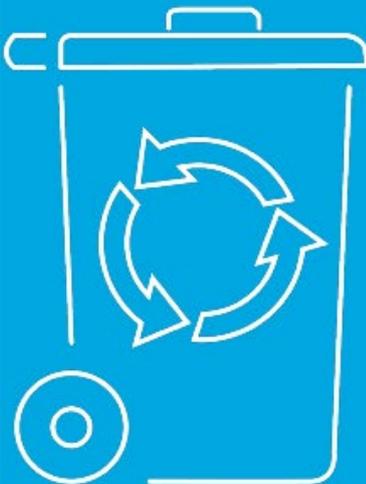
WHY?

When organic waste like food goes to landfill, it decomposes and creates methane, a greenhouse gas 25 times more potent than CO₂.

The use of compost in gardening can:

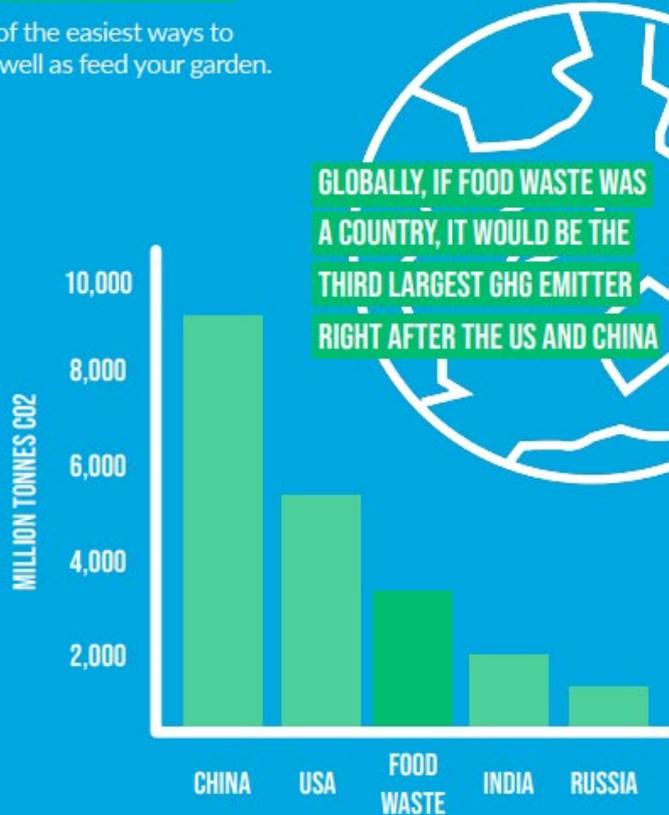
- Reduce the amount of water required
- Reduce the amount of synthetic fertilisers needed
- Improve the structure, fertility and health of soils
- Help regenerate soils suffering from poor management

HOW?



SETTING UP

1. Use a small container or bin that is easy to carry and clean to collect food scraps in your kitchen.
2. Purchase a compost bin that's right for you. If you have enough space, have a 'working bin' to add to every day, and another 'digesting bin' that you leave to break down once full. You can claim up to 80% off RRP with some local council subsidies at [Compost Revolution](#).
3. Place your compost bin where it will get a lot of sun. The heat will help to speed up the process. Just remember to air it regularly.
4. Ensure your compost bin is at least 30 cm from walls, fences or any structure to avoid rodents.
5. Start adding organics, ensuring that over time you have a mix of green and brown scraps (see below).
6. Check with your local council or community gardens to see if they run composting workshops if you need more help getting started.



WHAT YOU'LL NEED...

1. A GOOD BALANCE OF

GREEN SCRAPS (NITROGEN)

Fruit and veggie scraps including chilli
 Citrus & onions
 Garlic
 Grains
 Tea & coffee
 Flowers
 Small quantities of bread, rice & pasta only

BROWN SCRAPS (CARBON)

Dry leaves
 Shredded paper & cardboard
 Straw
 Wood chips/saw dust
 Dry grass

2. OXYGEN



Make sure you turn your compost regularly, at least once a month.

Sprinkle water when necessary to ensure your compost is moist, but not too wet

3. MOISTURE



HARVESTING

Your compost is ready to use when it looks like soil and has an earthy smell. If you find any materials that haven't broken down after you harvest it, simply put them back in your bin.

COMPOST BIN

Remove the compost from the bottom, new materials thrown on the top might not be ready yet. Most bins have a little door at the bottom to make this easy for you.

If you have a long-term, 'digesting' bin, lift the whole bin, the whole batch will likely be ready.

COMPOST TUMBLER

If your tumbler has 2 compartments, fill one up first and let it mature while you start filling the other half. If it has only one compartment and it is full, you'll have to wait (check frequently and air it) until the whole batch is ready (between 4-12 weeks).

Empty the compost in a bucket and start over. You can leave a little bit in the tumbler to kick start your new compost.



TROUBLE SHOOTING

WORMS

Compost worms will naturally appear, they are amazing and will increase the quality of your compost, let them be.



PRO TIPS!

- The most common problem is not having access in your garden to enough dry leaves. Why not get them from the street? There is a surplus of dry leaves on our walkways so don't be shy and collect them when you can.
- If you need more nitrogen for your compost, register with [ShareWaste](#) and accept food scraps from neighbours.

MATERIAL NOT BREAKING DOWN

It could be too dry, too cold or doesn't have enough oxygen. Turn your compost more frequently, add some water and if possible more green and brown scraps to increase its mass and generate more heat.

ANTS & COCKROACHES

The compost might be too dry. Add water and stir.

FLIES

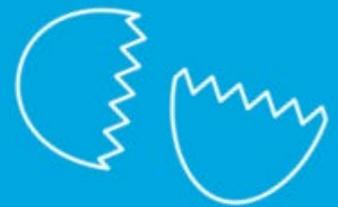
The flies around compost bins are usually fruit flies. They are harmless but it usually means your compost is too wet. This can easily be fixed by adding extra dry or carbon rich material such as dead leaves. If you have house or brown flies, it may be because you added meat or dairy products to your compost. Add soil to the mix and refrain from adding any more meat or dairy to your compost.

SOLDIER FLY LARVAE

Often mistaken for maggots, they are bigger and brown, don't remove them! Any respectable composter will know they will get the job done faster for you. They will eventually leave.

BAD SMELL

It might be missing oxygen or brown scraps. Add dry leaves and give it a good stir.



RODENTS

Rodents are attracted to smelly or uncovered food. Stir your compost regularly to avoid rodent nesting. Place a wire mesh below your compost so that they cannot get in through the soil and ensure the lid is properly closed. A tumbler is less likely to get rodents.

TOO DRY

Spray some water but avoid over-watering. Add green scraps, particularly fruit scraps.

TOO WET

For excessive moisture, add dry brown scraps. Check that it has good drainage.



Ch 3: THE HUMAN CYCLE - LUNCH WASTE AUDIT

Use these steps as a guide to help your class conduct a simple waste audit.

1. Choose a day or a week before the Waste-Free Lunch Challenge has commenced. Ask your students to keep all of their packaging and waste from recess and lunch.
2. In the classroom or another designated area, place nine large containers labelled with the following categories: plastic containers, milk and juice cartons, paper and cardboard, metal, squeeze pouches, chip packets, plastic wrap and bags, and food scraps. On the first day, the class can work collectively to identify their packaging items and sort them into one of these nine categories.
3. After each recess and lunch, ask your students to continue placing their packaging and waste items into the correct boxes.
4. Keep a tally of the number of items collected in each box over the week or the day. Groups of students can be allocated this task over different recess and lunch periods. Ask students to fill in the results on a large chart.
5. Optional: take a photo of some of your students' lunches to capture a visual representation of the composition of their lunches.

Waste audit table

Below is an example table you can use for your waste audit.

ITEM	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	TOTAL
Milk and juice cartons						
Plastic containers						
Glass (teachers only)						
Paper and cardboard						
Metal						
Squeeze pouches						
Chip packets						
Plastic wrap and bags						
Food scraps						

MATHS ACTIVITY FOR STUDENTS

1. Using the class waste totals, work out how much waste your class would produce in one school term (assuming there are ten weeks in a term).
2. Using the above totals, how much waste would you class produce in one school year of four terms?
3. How many classes are there in your school?
4. Using the number of classes in your school, and the total waste your class would produce in one year, how much waste would your whole school produce in one year?



Ch 3: THE HUMAN CYCLE

GENERAL SCHOOL WASTE AUDIT

Waste audit table

Below is an example table you can use for your waste audit.

ITEM	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	TOTAL
Milk and juice cartons						
Plastic containers						
Glass						
Paper and cardboard						
Metal						
Squeeze pouches						
Chip packets						
Plastic wrap and bags						
Food scraps						
Aluminium cans						
Printer cartridges						
Computers and accessories						
Mobile phones and accessories						
Books						
Steel cans						
Fluorescent lights						
Other/miscellaneous						



Ch 3: THE HUMAN CYCLE

AUSTRALASIAN RECYCLING LABEL

ACTIVITY SHEET

The Australasian Recycling Label (ARL) makes it easy to put your packaging in the right bin.

HOW DOES IT WORK?



RECYCLABLE

(Coloured Recycling Symbol)

Each component with this label can be placed in your kerbside recycling separately.



CONDITIONALLY RECYCLABLE

(Clear Recycling Symbol)

Can be recycled **ONLY** if the instructions below the symbol are followed. If not it has to go in the rubbish.



NOT RECYCLABLE

(Bin Symbol)

This is not recyclable, it has to go in the rubbish bin. If you place it with your recycling, you will contaminate your bin.



CHECK LOCALLY

(Location Symbol)

This item may be recyclable. Checking with your council at ARL.org.au or [Recycling Near You.com.au](http://RecyclingNearYou.com.au) will let you know local options.



FIND-A-WORD



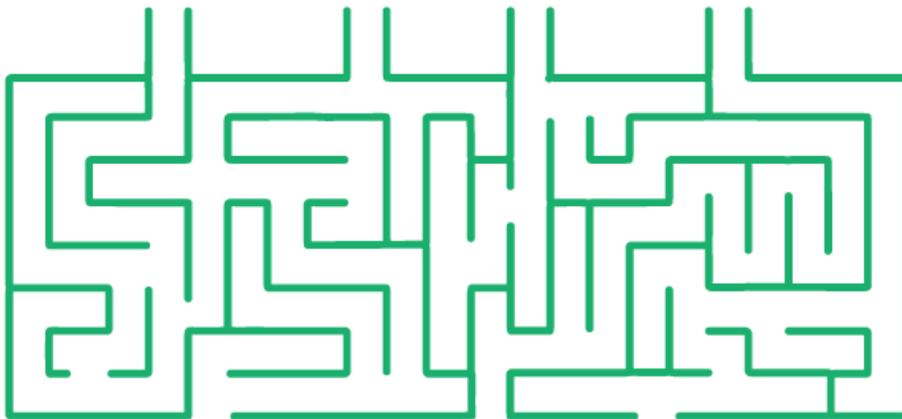
These words related to the Australasian Recycling Label, can you find them?

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

- BAG
- BOTTLE
- CAP
- CARTON
- RUBBISH
- RECYCLE
- SEPARATE
- PLASTIC
- FOIL
- RINSE
- LABEL
- FOLD
- TRAY
- JAR
- EMPTY

MAZE

Follow the path to find out which bin the packaging goes in.



Recycling



Check Locally



General Waste



Visit SchoolsRecycle.PlanetArk.org to register your school's events and get information, updates and free resources to help plan your activities.



AUSTRALASIAN RECYCLING LABEL

MEMORY CARD SET

1. Cut the cards to make 10 pairs.
2. Mix up the cards and lay them in rows facing down.
3. Turn over any two cards, if the label and the item match, keep them.
4. If they don't match, turn them back over.
5. The game is over when all the cards have been matched.





Visit SchoolsRecycle.PlanetArk.org to register your school's events and get information, updates and free resources to help plan your activities.





ACTIVITY

What can I recycle at school?

Some types of packaging can be recycled. Although it's important to try to reduce the amount of packaging we use, recycling whatever packaging we can is much better than throwing it in the rubbish bin.

In the table below, draw a happy face next to those items that can be recycled at school. Draw a sad face if they can't be recycled and must be thrown into the rubbish bin.

ITEM	Can recycle at school	Can't recycle at school	Can recycle at home
Juice or milk carton			
Plastic drink bottle			
Aluminium can			
Aluminium foil			
Paper bag			
Plastic wrap (eg. cling wrap)			
Chip packet			
Plastic tub (eg. single serve yoghurt/fruit)			
Squeeze pouch			
Tin (eg. small tin of fruit pieces)			



Ch 4: SOCIAL INNOVATION

LEAF RUBBINGS



To create leaf rubbings you will need:

- Plain paper
- Selection of leaves
- Charcoal or coloured crayons (with the wrapping taken off)



STEP 1

Gather your leaves - try to find a variety of shapes and sizes.

Leaf patterns are cool!!

STEP 2

Place a leaf with the veiny side (generally the underside) facing upwards, underneath your piece of paper.



STEP 3

Pressing down on the stem of your leaf with a finger so it doesn't move, use the long side of your charcoal/crayon to rub over the leaf. For the best effect, use long sweeping motions.

STEP 4

Repeat with other leaves, experimenting with different colours and layouts, and then turn your creations into whatever you like! (eg. greeting cards, framed art or a hanging leaf mobile for your room.)

BONUS EXTRA!

If you have a white crayon, you could create your leaf rubbing like this, and then paint over it with watercolour paints for a special ghostly look!

