



TEACHERS' RESOURCES

RECOMMENDED FOR

Upper primary
(ages 9–11)

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KEY CURRICULUM AREAS

- **Learning areas:** English, Science, Technologies
- **General capabilities:** Information and Communication Technology (ICT) Capability, Critical and Creative Thinking, Personal and Social Capability, Ethical Understanding
- **Cross-curriculum priorities:** Sustainability

REASONS FOR STUDYING THIS BOOK

- Learning about the environment – key issues being war on waste and climate change
- Asking questions about how our actions make an impact on the planet

THEMES

- Garbology
- Understanding landfill
- Recycling
- Composting
- Reducing, reusing, repairing and repurposing our rubbish

PREPARED BY

Penguin Random House Australia

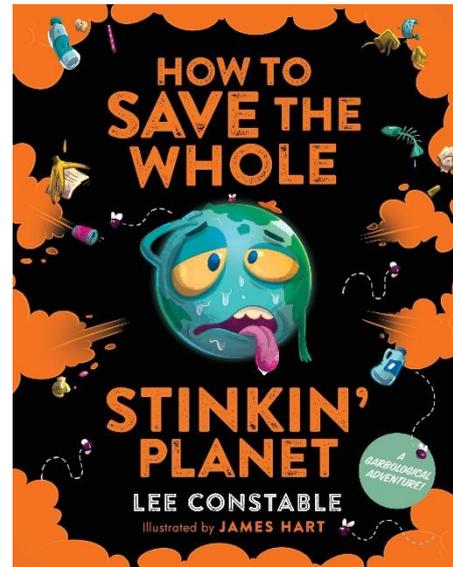
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How to Save the Whole Stinkin' Planet Lee Constable

PLOT SUMMARY

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.

ABOUT THE AUTHOR

Lee Constable

Lee Constable is the host of *Scope*, Network Ten's science and tech show for kids aged 7–13. Lee's background is a mixed bag with a Bachelor of Science (Honours), Bachelor of Arts and a Master of Science Communication Outreach. During her Masters, Lee toured remote and regional Australia as a Questacon Science Circus presenter and founded, produced and hosted youth-run social justice and sustainability radio show and podcast, *SoapBox*. Lee is the founder of Co-Lab: Science Meets Street Art where collaborations between scientists and street artists result in science-inspired murals that evolve live for the public. In 2018 Lee was part of the largest ever all-female expedition to Antarctica with 80 international women in STEM as part of the Homeward Bound leadership program.

From spending evenings as an Education Ranger with a spotlight in hand showing school groups the plants and animals of the Australian National Botanic Gardens to spending days showing kids around ACT's landfill and recycling sorting facility, there's no environment too hot, cold, dark or smelly to warrant some youth-friendly scientific communication.



ABOUT THE ILLUSTRATOR

James Hart

James Hart grew up loving comics, cartoons and drawing. After finishing his studies he turned that passion into a full time career as an illustrator. Over the years he has worked on toy designs, animations and books for multiple clients and publishers across the world. Projects include: the popular animated series of *The Day My Butt Went Psycho*, the award-winning You Choose series, the CBCA-notable Mr Bambuckle's Remarkables series, the thrilling Mysterious World of Cosentino series, the young adventure series: D-Bot Squad and MANY titles with his favourite author Adam Wallace

In 2018 James illustrated the Premiers' Reading Challenge posters in Victoria. 2019 sees the release of his new books series, Cowboy and Birdbrain that he illustrated and co-created with Adam Wallace.

When James isn't drawing he can be found being a dad and husband, watching movies and cartoons, listening to music, gardening, reading and writing.

PRE-READING QUESTIONS

1. Captain Garbology is a professional garbologist and their main job is to save the Whole Stinkin' Planet. What does the science of garbology involve?
2. Before we dive into our Waste Warrior training, discuss as a class how you think our household rubbish is harming our planet?

KEY STUDY TOPICS

How to Save the Whole Stinkin' Planet is broken up into six chapters which each cover a different journey your household rubbish might take. Within each chapter, you will read about exactly what happens to your rubbish and the effect it has on the planet on each journey it could potentially take. This encourages us to think a little deeper about the journey we choose to send our rubbish on.

After reading each chapter, use the Round-Up questions below (also provided within the book) to have a class discussion.

CHAPTER 1: GET IN THE BIN

The Rubbish Round-Up

1. What are the tiny things that break down waste called?
2. What type of waste makes up the biggest slice of your pong pie?
3. How do you tell the difference between **soft plastic** and **hard plastic**?
4. What types of rubbish go into the recycling bin?



CHAPTER 2: THE DUMP DIG

The Rubbish Round-Up

1. How long does it take for plastic to break down?
2. What is the scientific name for an environment like landfill that has no air?
3. What are the two types of waste that come out of the landfill?



CHAPTER 3: MEET MURF

The Rubbish Round-Up

1. Name something that is recyclable. (Hint: Something that Murf likes to eat.)
2. Name something that is NOT recyclable. (Hint: Something Murf spits out.)
3. What is one property that helps recycling get sorted by Murf's machinery?



CHAPTER 4: THE FOOD WASTE FEAST

The Rubbish Round-Up

1. What is composting?
2. What items can go in the compost bin?

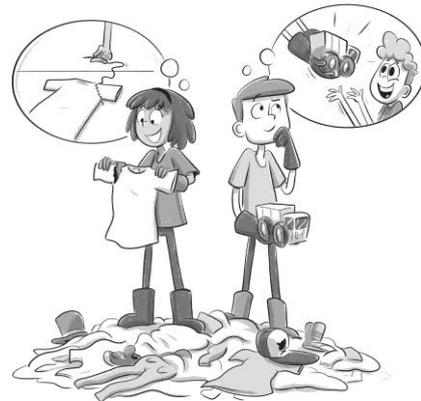
3. What can you do to take care of your composter?



CHAPTER 5: REIMAGINE RUBBISH

The Rubbish Round-Up

1. What are the FOUR R's?
2. Name something you were going to throw away that you could reuse or repurpose? How?
3. If you don't want something anymore but it's not broken or it's perfectly wearable, what should you do with it?



CHAPTER 6: GRADUATION

The Ultimate Rubbish Round-Up

1. What are the slices of your rotten rubbish pie?
2. Which slice of the pong pie do you think people throw in the general waste bin the most?
3. What happens to the collected methane in the landfill?
4. Which types of rubbish does Murf love to gobble up and sort for recycling?
5. What's the difference between renewable and non-renewable?
6. What is the scientific name for an environment like compost that has lots of air?



7. Does food waste break down quicker in the compost or in landfill?
 8. What types of things eat food waste and turn it to soil?
 9. What items of rubbish might be too tricky to compost or for MURF to sort?
 10. What's one way YOU could reduce how much waste you create?
4. Start a Waste Warrior club at school – this could be just your class, or you could even involve the whole school. What actions can your Waste Warrior club make that will help to Save the Whole Stinkin' Planet. Here are some suggestions to get you started:
 - o Make posters for your school with information on what rubbish goes in which bin.
 - o Plan a club mission to pick up litter in the playground at lunchtime.

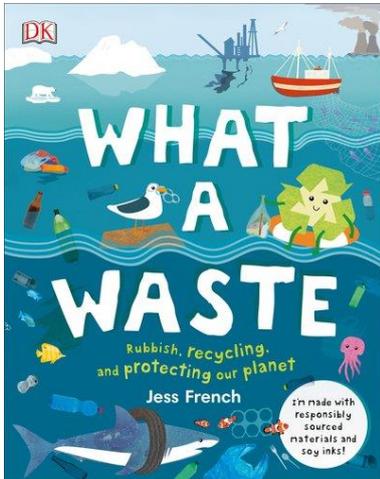


ACTIVITIES

1. Throughout your Waste Warrior training you will need to keep notes of all the questions that pop in your head and all the experiments you complete. Make your very own Garbology Lab Book from recycled materials. It could be an old notebook or exercise book, or you could even make a book out of scrap card and paper. Up to you!
2. For a class project, make a mini composter. Make sure you follow the 'Compost Care' rules in Chapter Four.
3. Do a bin audit every week and compete with another class to see who can reduce the amount of garbage in their weekly pong pie the most.



FURTHER READING FROM PENGUIN RANDOM HOUSE AUSTRALIA

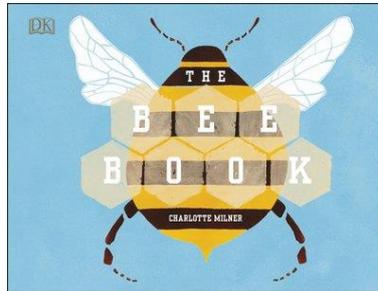


What A Waste
by DK

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.

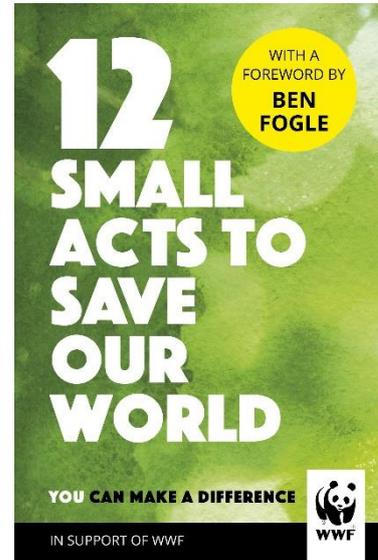
This environmental book will teach keen young ecologists about our actions affect planet Earth. Discover shocking facts about the waste we produce and where it goes. Did you know that every single plastic toothbrush ever made still exists? Or that there's a floating mass of rubbish larger than the USA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



The Bee Book
by DK

Buzzing with amazing facts, *The Bee Book* is a charming celebration of bees. The talented new author and illustrator, Charlotte Milner, takes you on an amazing journey through the world of bees and tells you everything you need to know about these fascinating creatures. Bees are incredibly industrious, brilliant at building, super social and – more importantly – responsible for a third of every mouthful we eat! Learn to appreciate our fuzzy friends, discovering why their survival matters so much.



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.



WORKSHEET: WASTE WARRIOR ID

Once you have your recruit name sorted, you'll need to make your Waste Warrior ID card. Fill in the essential planet-saving questions on the template below. Draw your picture in the frame, or you could even attach a photo!

**DEPARTMENT
OF
GARBOLGY**

WASTE WARRIOR
ID CARD

Recruit Name:

Age:

Special Powers:

Things I throw out the most:

Things I like to recycle/reuse:

Favourite smell:

Least favourite smell:



WORKSHEET: LABEL THE LANDFILL

In Chapter Two, Captain Garbology took us on a stinky trip to the landfill. We learnt all about garbology behind all the different layers that make up this putrid pit. Can you remember what they all were? See if you can label the diagram below. Once you have filled in the labels, write a short description of how a landfill works.





WORKSHEET: THE WASTE WAVE

Your mission is to surf this wave of wannabe recycling and sort all of the rubbish into three types: 'Recyclable', 'Non-Recyclable' and 'E-Waste'.



JAM JAR

GARDEN CLIPPINGS

GAMING CONTROLLERS

PAPER

BATTERIES

PADDLE POP STICK

CEREAL BOX

SOFT DRINK CAN

MILK BOTTLE

APPLE CORE

ALUMINIUM FOIL

SMART PHONE

YOGHURT TUB

HALF-EATEN SANDWICH

GLASS BOTTLE



THE WASTE WAVE ANSWERS SHEET

<u>RECYCLABLE</u>	<u>NON-RECYCLABLE</u>	<u>E-WASTE</u>



ORDER FORM

TITLE	AUTHOR	ISBN	SCHOOL YEAR	RRP	QTY	TOTAL
How to Save the Whole Stinkin' Planet	Lee Constable	9781760890261	3-6	\$19.99		
What A Waste	DK	9780241366912	2-4	\$19.99		
The Bee Book	DK	9780143769897	2-4	\$24.99		
12 Small Acts to Save Our World	WWF	9781780899282	5+	\$29.99		
TOTAL						

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