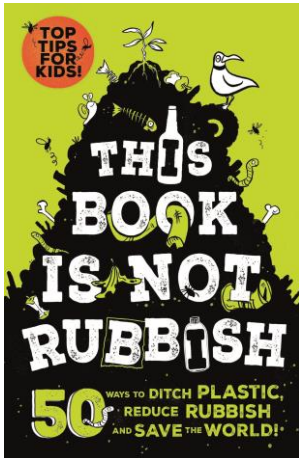


The Big Topic: Conservation



This Book is Not Rubbish

Isobel Thomas

Covering issues like plastics, pollution, global warming and endangered animals, this book is full of top tips for kids who want to start making a difference.

Lesson ideas and Activities

Content aimed at Year 5 and Year 6, with links made to relevant National Curriculum content for those year groups.

Conservation – if we want our children to be the pioneers of a better world, the protectors of our world, we must instil in them curiosity, care and compassion. If we show them the beauty of our planet and all its creatures, they will find the reasons and the motivation to care for themselves.

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British Science Week

[British Science Week](#) takes place from 8th to 17th March. The theme for this year's British Science Week is 'journeys'. In this section, we will look at ways you can explore journeys through this book.

A Sparkly Journey:

- Before dipping into the book, ask children if they think glitter is dangerous to the environment. You may also want to check if they know what material it is made from.
- Take a look at pages 36-38 together and discover the journey glitter can make from sparkly birthday card, to a fish's tummy.

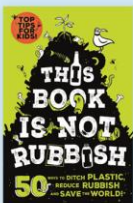


Lesson Ideas:

- Note down and research all the products that glitter is used in. Children may be surprised to find out how widespread its use is. Consider all the ways this glitter could get into the water system – e.g. glitter in a bath bomb going down the bath plug.
- Research what happens to water after it goes down the pug hole. ([This](#) website may be useful)
- Now let children decide how they will show this journey – it could be a comic strip, a story map, a flow chart. Children could share these in a Vlog or presentation.
- Research biodegradable glitter products. Ask children to vote on whether they should use biodegradable glitter at your school.

Jelly Fish or Bag – a Plastic Journey:

- Ask the children how many plastic bags their family uses when they go shopping. Hopefully, some will already use reusable bags, but some may still use plastic bags. You could discuss the reasons why different families make different choices.
- Read pages 132-135 together and discover the journey a plastic carrier bag can take from supermarket to turtle's tummy.



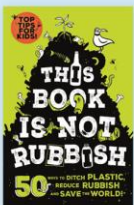
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Lesson ideas:

- Focus on the fact shared on page 132 that plastic bags are used for an average of 12 minutes. Does it shock children? Develop children's oral articulation by getting them to convince their talk partner plastic bags are a poor use of resources in just 2 sentences. See how many facts they can include – noting people are really persuaded by statistics. Sentence scaffolds can be useful starting points e.g. Plastic carrier bags are proven as a poor use of resources because.....
- List the hazards a plastic bag can become to marine life, from the text. Turn these into varied noun phrase lists:
 - Plastic bags can get caught around a sea creature's neck, so we could call them a strangler, a choker, a breath stealer...
 - These can be developed with adjectives before and prepositional phrases after e.g. a silent, supermarket strangler with a faded shop sign
- Use these ideas to build a poem with a strong conservation message. Each stanza can start with the same line:
 - I'm supposed be a carrier bag, carrying all your food,
 - But I've become....
- Then select 3-5 of the noun phrases for each stanza, basing each stanza on one of the hazards – a stanza on trapping small animals, a stanza on suffocating sharks and seals...

***I'm supposed to be a carrier bag, carrying all your food,
But I've become a silent supermarket strangler, with a faded shop sign,
A constricting, tightening suffocator around a shark's neck
A deadly, lethal asphyxiator without care for any creature.***

- A sad story – focus on the journey a plastic bag may take from the checkout till to the belly of a marine creature. Allow children to select a marine creature to research about their consumption of plastic. Get children to tell the tale of a plastic bag and its journey.
- Get children to design an advert or poster, getting other children in school to 'think like a sea turtle' and say no to single use carrier bags.



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Maths

Using mathematical skills based on a book can really help children understand the purpose of maths in the real world. You will find that it can increase pupil engagement and motivation to learn. In this section, we will look at ways to apply mathematical content from the Year 5 and Year 6 National Curriculum Programmes of Study.

Ditch the washing Up:

- Check out pages 16 – 21 and find out why putting less effort into washing the dishes can be better for the environment!
- Find out who washes dishes by hand and who has a dishwasher. How is it done in their home?

Washing the dishes uses around 5 per cent of **ALL** water we use at home. A typical household washes dishes by hand 10 times a week, using **30 LITRES** if the washing or rinsing is done under a running tap. It's possible to use much less water if you avoid wasteful habits like running the hot tap to rinse dishes. Every minute, a running tap pours out 8 to 12 litres of water – a week's worth of drinking water.

Heating this water releases the equivalent of **8 kg** of carbon dioxide – that's as much as if you left a 42-inch LCD TV on for **48 hours**.

Lesson ideas:

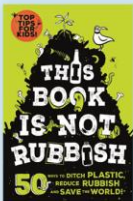
- The book tells us washing dishes uses around 5% of all the water used in a home. Use this fact to lead into some % calculating:
 - If a home uses 8,00 litres of water a week, how much water do you estimate they use on washing up per week? (calculate 5% of 8,000).
 - If a home uses 300 litres a week on washing up, what do you estimate is their weekly water usage in litres?
 - If the average bath uses 100 litres of water, and the home uses 6,000 litres of water a week, what % of their weekly uses is a bath?
 - If a home used 9,000 litres of water a week, but then reduced this with eco solutions by 5%, what could they reduce their total weekly use to?
- You could represent the % as fractions too, to get some fraction calculating from this idea.



- The book tells us a running tap pours out 8-12 litres every minute. Do some real life measuring – run a tap for 20 seconds. Catch this water in a bowl, then use measuring jugs/cylinders to find out how much water ran. Then use this to find out how much would pour out in a minute, showing children that if we do 20seconds x 3 we get 60seconds for a minute, so need to do the same to the other measure, too. This can be modelled in a ratio format. 8litres:20 secs, or 8 litres ‘for every’ 20 seconds.

Be sure to reuse the water to water the plants or wash some pots so it isn’t wasted!

- Try out some other ratio problems:
 - If a tap pours 11 litres every minute, how many litres does it pour in 6 minutes?
 - The same tap poured 77litres. How long was the tap running?
- The book tells us a typical household washes dishes by hand 10 times a week, using 30 litres each time. Let’s call this the mean average amount. Get children to explore what the possible actual amounts could be if the mean average is 30litres. So, children need to explore ways to make 300 with 10 different values. Use the sheet [‘Dishwashing Averages’](#).



Dishwashing Averages:

How many ways can you find?

The dishes are washed 10 times in a week. The average amount of water used is 30 litres. Find ways to get the same mean average with different amounts of water for each time the washing up is done.

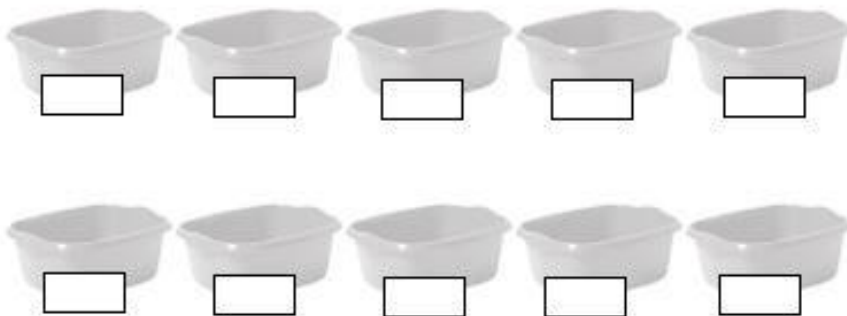
Example:



$$31 + 29 + 34 + 26 + 30 + 30 + 28 + 32 + 29 + 31 = 300$$

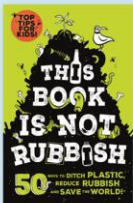
$$300 \div 10 = 30$$

Your Turn:



Challenge:

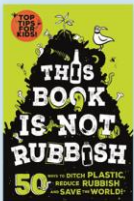
Can you find a solution where the lowest amount is 8 litres and the greatest amount is 32 litres?



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Painting:

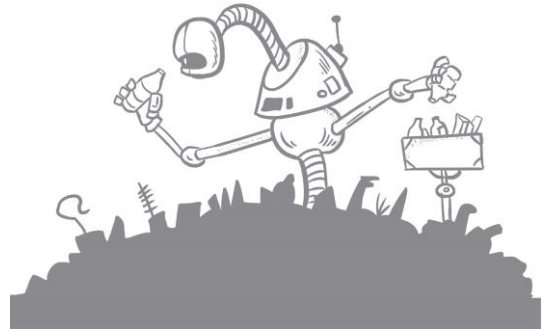
- Pages 56-58 tap into the current trend of pebble or rock painting. This is such an adaptable project, as you can create any design you like. Encourage your pupils to get outdoors to 'hide' the rocks with their families, or take your class on a local walk.



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Science

This book is dripping with real life science. In this section, we will look at using the book as a hook into scientific knowledge acquisition and working scientifically.



Materials and their Properties:

- Before reading pages 48-49, ask your class if they recycle at home. Spark some discussions on where rubbish goes after you put it out for refuse collection.
- The book suggests in this section that you visit a recycling site or landfill site. This would be a great opportunity for your class to learn about the ways rubbish is transported and sorted. Do check out if your local site offers these free visits.
- As a starter activity, create a 'bag of rubbish' with some clean rubbish that you have prepared. Include as many different materials as you can. In pairs, ask children to discuss what materials the rubbish comprises of and to consider the properties of those materials. It would be of great use to have a word bank of key vocabulary to support this discussion e.g. soluble, insoluble, biodegradable, non-biodegradable, magnet ...etc... Ask children to sort the items into recyclable and non-recyclable. You can encourage them to look at the information on the packaging to support this.
- Pose the design task to your class – can you design a rubbish sorting machine? Give children encouragement to create a robot/machine with different sections to sort the different materials. Link to science learning about separating materials. Ask key questions to prompt ideas – how can we separate the metals? Could we use sieves? Do any items float or sink?
- A creative idea to test the designs could be to 'perform' the machine design as a human conveyor belt. Set up a long line of tables, with children acting out the part of the machine e.g. part one a child has a magnet to separate the magnetic metals, then pushes along the unsorted rubbish...and so on...



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Literacy Outcomes

Whilst working through these cross-curricular book-based activities, your children will acquire a great deal of knowledge, and hopefully their own voice on the subject. The best writing comes when the purpose and knowledge are real. In this section, we'll look at some SPaG in context and some literacy-based outcomes for sharing this new knowledge.

Reading:

As you read this text, there are many opportunities to discuss author choice and purpose. Look at the titles and discuss why they are effective – pick up on alliteration and play on word. Consider the layout of the page and why certain information may be set out that way.

Ask children if they would recommend this book. Encourage them to articulate their thoughts with sentence scaffolds: 'I would recommend this book because'; Read this book if you like, and'; 'This book is suitable for readers who are looking for'.

SPaG:

- When writing to persuade, writers need many devices in their tool-kit.
- Take a look at page 16. Ask pupils to highlight devices that try to convince the reader.

DITCH THE WASHING UP

You hate it, and the planet hates it too! Happily, putting less effort into doing the dishes is a win-win situation.



PLANET-O-METER

- Pick out the use of the word *hate* and *happily* in the first and second sentence. Discuss how one is of negative extreme and the other positive extreme. a bank of synonyms for hate or dislike. Can children create their own similar sentences?
- Look at the use of repetition 'you hate...the planet hates...'. Can you go one step further with this repetition device: I hate it, you hate it, everyone I know hates it and EVEN the planet hates it to!
- Then, look at other adverbs like happily. Encourage children to generate sentences that begin with a synonym. Challenge them to find three synonyms and see what effect this creates: Happily, fortunately, luckily...
- Showing a clear contrast can be a valuable persuasive device. Try using the first sentence as an extreme negative 'this is how it is NOW' sentence, against a second extreme positive 'this is how it COULD be if we change' sentence.



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- Look at the use of questions as a device. Encourage pupils to complete question sentences with the same scaffold to begin: 'Have you ever?' 'Would you like' 'Could you?'
- Check out page 67-68 to look at effective (and a bit funny) slogans.
- Look at the use of statistics to support an argument.

Composition:

- A letter to the head teacher. Task your class with persuading the headteacher to make your school more eco-friendly. Children can begin planning their letter by considering a suggestion to be made in each paragraph. This could be 'boxed up' or in a 'mind map' format. Then, encourage them to add details to the plan, challenging them to consider a statistic, a slogan, and a contrast to clearly show why the eco change is required, to include in each paragraph.
- Read some formal persuasive letters with your class before they write, so they can aim for the same formal tone and structure.
- Washing up vs Dishwasher debate. Split your class into halves, giving them either FOR or AGAINST Dishwashers. Give each team time to gather all the evidence from the text to support their argument. Additional research from other books or online articles would further enhance this activity. Ask children to prepare statements to use within the debate, including facts and statistics, suggestions and questions. They may benefit from including real life anecdotes, creating a real hook for the argument.
- *Set up the classroom so the FOR half of the class face the AGAINST half of the class.* Invite each child or paired team to share their prepared statements, following each with other children agreeing, questioning, building on or disagreeing. Establish the 'rules of debate' before you begin, so children are clear on what is expected. It may be useful to display a bank of sentence scaffolds to support the debate: 'I agree with your point about because....'; 'May I ask?'; 'I'd like to add'; 'I'm in agreement with this because...'; 'May we look at this a different way,'; 'I don't agree with this point. Let me explain why....'; 'May I offer a different opinion?'; 'Could we look at this a different way?'. End the debate with a final vote to make a final shared decision.
- A speech for change. All of the previously used persuasion tools and facts researched could be used in writing and performing a speech for a specific change. These could be targeted at the school leadership, the rest of the school pupils, the local council or the wider school community. It would be great idea to watch some effective speeches beforehand, such as Malala's speech to the UN. Ensure that pupils have a clear idea of the purpose of the speech and are specific and explicit in their call to action in their planning.
- Why not record these speeches and share them on the school blog or website? If they are calling for change from the local council, try to send them to the local MP. Children's voices are powerful in making changes!

