

Izzy Gizmo

and the Invention Convention



RESOURCE PACK
FOR KEY STAGES 1-2

Pip Jones * Sara Ogilvie

Izzy Gizmo

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INTRODUCTION

Suitable for: Ages 5-8

Includes: Free extracts from the book + reading questions and suggested activities

Themes: Recycling; Choosing Materials; Inventions; Genius Children!

ABOUT THE BOOK



Izzy and Fixer are back for more machine mayhem!

While their fellow contestants at the Invention Convention are intent on wasting energy to make shiny new things, can Izzy and Fixer build a brilliant recycling machine fuelled by nature AND win the coveted Genius Child badge along the way?

Izzy Gizmo and the Invention Convention is a touching story of self-belief and determination with a fantastically feisty female character, a fitting sequel to the much-loved *Izzy Gizmo*.

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OBJECTIVES & OUTCOMES

This cross-curricular Resource Pack provides material for at least four, hour-long lessons that can take place during classes, during circle time, P4C sessions, or as extra-curricular activities. Lessons can be delivered sequentially or dipped in and out of.

Extract Pack 1: The Recycling Machine (Page 14)

Objectives:

- To consider the impact of litter that is not recycled on the environment
- To explore and present how waste might be reduced, reused or recycled

Outcomes: *A record of materials in different recycling bins; an investigation of a school bin; ideas for improving school's recycling.*

Extract Pack 2: Paddles and Pipes! (Page 24)

Objectives:

- To group objects according to the material they are made from
- To begin describing materials according to their properties and to predict their purpose

Outcomes: *A list of materials and objects made from those materials; a description of the properties of materials and their purpose.*

Extract Pack 3: Invention Convention (Page 2)

Objectives:

- To create an invention that is useful for the world or society
- To evaluate your own and someone else's work

Outcomes: *An invention that is useful to the world or society; a reflection on someone else's work; an evaluation of your own work.*

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PRE-READING: INTRODUCING IZZY GIZMO

These activities are designed to help pupils explore ideas and speculate about themes in the book. They should feel free to discuss anything that comes to mind.

Lead-in questions:

- What does the title 'Izzy Gizmo and the Invention Convention' make you think about?
- What do you think an 'Invention Convention' is?

Activity 1:



Look at the cover of the book. Can you find some of the following things and label them?

ENVELOPE

GLASSES

BROKEN HAMMER

TOOLS

PENCIL

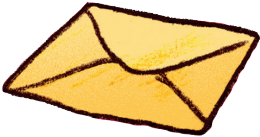




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PRE-READING: INTRODUCING IZZY GIZMO

Activity 2:

IMAGE	WHAT IT COULD REPRESENT	WHAT IT TELLS ME ABOUT THE BOOK
		
		
		
		
		

Now that you've found all of the things on page 4, write down what you think each of them could represent and what it tells us about Izzy Gizmo and/or the themes included in the book. Use the grid below to record your ideas!

Note: younger children might just talk about what they can see and what it makes them think of.

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EXTRACT PACK 1: THE RECYCLING MACHINE

“My drill’s bust!” called Abi.

“Take it out with the junk . . .”



“Are all these tools **broken**?” Izzy gawped in dismay.

“You could mend them!
You don’t have to throw them away.”



Suddenly . . .

Reading Questions:

- What can you tell about Abi’s personality from what she is doing here?
- How can you tell that Izzy disagrees with what Abi is doing? Pick out any key words.
- What does Izzy want to do instead?

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EXTRACT PACK 1: THE RECYCLING MACHINE

Activity 1:

Let's start thinking about recycling! First of all, create and line up three bins or boxes with five labels: "cans"; "paper and card"; "plastic"; "glass" and "compost".

Can you sort the items of litter below into the correct bin?

Consider with your classmates: why is it important to sort litter properly? What are the positive effects of doing this on our environment?



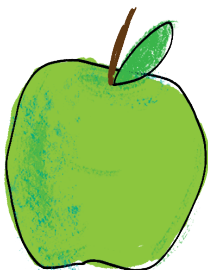
Tin of Beans



Cardboard



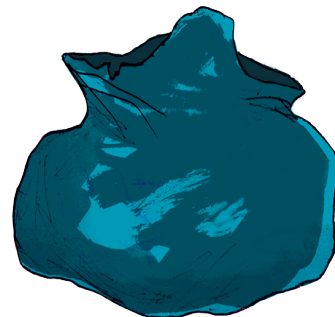
Glass Jar



Apple



Newspaper



Plastic Bag

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EXTRACT PACK 1: THE RECYCLING MACHINE

Activity 2:

Investigate your school's litter to see how effectively it is helping the environment. Are you a school full of Abi von Lavish's, or a school full of Izzy Gizmo's?!

Take some time to sort through your classroom's litter. Make sure that you wear gloves or wash your hands after touching anything in the bin. Alternatively, observe what is in the bin just by laying it out in front of you on a covered table.

Record what you find in the grid below.

PLASTIC	PAPER & CARD	CANS	COMPOST	GLASS

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EXTRACT PACK 1: THE RECYCLING MACHINE

Activity 2:

Discuss the following questions about the litter with a partner:

1. Which is the most / least common material?
2. Which materials could be recycled?
3. Does everything that you found need to be thrown away? Could it be reused?

Activity 3:

Think about ways you could improve your school's recycling. How might Izzy's Tool-Fix-Recycle-O-Matic help? Can you think of your own idea for an invention? Share it with your classmates.

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EXTRACT PACK 2: PADDLES AND PIPES!



Reading Questions:

- What different materials are mentioned here? Find six.
- How does Izzy feel to be making her invention? How can you tell?
- What do you think each of the materials might be for?

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EXTRACT PACK 2: PADDLES AND PIPES!

Activity 1:

Look at some of the materials listed below and match them to the object that they are suitable for making.

Metal

Envelopes

Plastic

Tables and chairs

Wood

Windows

Glass

Knives and Forks

Leather

Shoes and Belts

Cotton

T-shirts

Paper

Water bottles

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EXTRACT PACK 2: PADDLES AND PIPES!

Activity 2:

Use the Wordbank below to help you describe each of the seven objects listed in Activity 1. For example: Belts are bendy.

SOFT	TWISTABLE	DULL
BENDY	SQUASHABLE	COLOURFUL
SMOOTH	STRONG	REFLECTIVE
ROUGH	FRAGILE	TRANSPARENT
HARD	WEAK	TOUGH
STRETCHY	SHINY	THIN

Envelopes

Tables and chairs

Windows

Knives and Forks

Shoes and Belts

T-shirts

Water bottles

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EXTRACT PACK 2: PADDLES AND PIPES!

Activity 3:

Look again at the materials that Izzy Gizmo is using for her invention. Can you use the same words from the Wordbank to describe them? Better still, can you make a prediction for what they might be useful for?

Finally, create a list of materials that you'd like to use in your own invention. Make sure you explain why you'd like to use them!

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EXTRACT PACK 3: THE INVENTION CONVENTION!



Reading Questions:

- What arrives through the letterbox here?
- How do you think Izzy feels to open the envelope? How would you feel?
- What does the phrase, "[w]e heard you're a whizz with invention" mean?

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EXTRACT PACK 3: THE INVENTION CONVENTION!

Activity 1:

Imagine you've received a letter just like Izzy, inviting you to the Invention Convention at Technoff Isle!

In groups of three or four, it's time to come up with your own invention. Remember to follow Grandpa's advice:

“Great inventors produce machines which can really be put to good use.”

Use the table below to help you plan your invention.

Things to consider:	Notes:
Name of Invention:	
Purpose of the invention	
How it will help the world or other people	
Choice of materials	
Appearance of the invention	

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EXTRACT PACK 3: THE INVENTION CONVENTION!

Activity 2:

Draw and label your inventions in the space provided, making sure to show what materials you are using.

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EXTRACT PACK 3: THE INVENTION CONVENTION!

Activity 3:

Place the designs around the classroom so that you can create your very own Invention Convention!

Walk around the room and give feedback to some of your classmates about their design using the evaluation form below. Make sure that you give constructive feedback and you provide supportive ideas for improvement.

REMEMBER! It is important to celebrate learning from mistakes. This is exactly how great inventors operate; just like Izzy, they don't expect to have a perfect design the first time.

Criteria:	Score out of 5 (where 5 is excellent):
Purpose of the invention	
How it will help the world or other people	
Choice of materials	
Appearance of the invention	
Overall quality of the invention	
TOTAL:	

When you have shared your feedback with each other, create a list of three ways that your invention might be improved.

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Activity 3:

Finally, give out these Child Genius badges to everyone in your class! Wear them and be proud, and we can't wait to see your inventions one day in the future . . .

