

**WHAT'S
THE BIG
IDEA?**



**Australian Inventions
that Changed the World**



wild dog
wdog.com.au

TEACHERS' NOTES

Synopsis

Australians are known for being ingenious and creative people. In fact, many of the world's most important inventions have come from Australia. *What's the Big Idea?* is an introduction to, and celebration of, Australian inventions, their creators and the ingenuity of ideas. Covering a wide range of topics and inventions – including First Nations' tools and farming practices, wi-fi, and Black-Box Flight Recorders – this fresh take on Australian inventions can be read from front to back, or as a dip in and out book.

Writing style

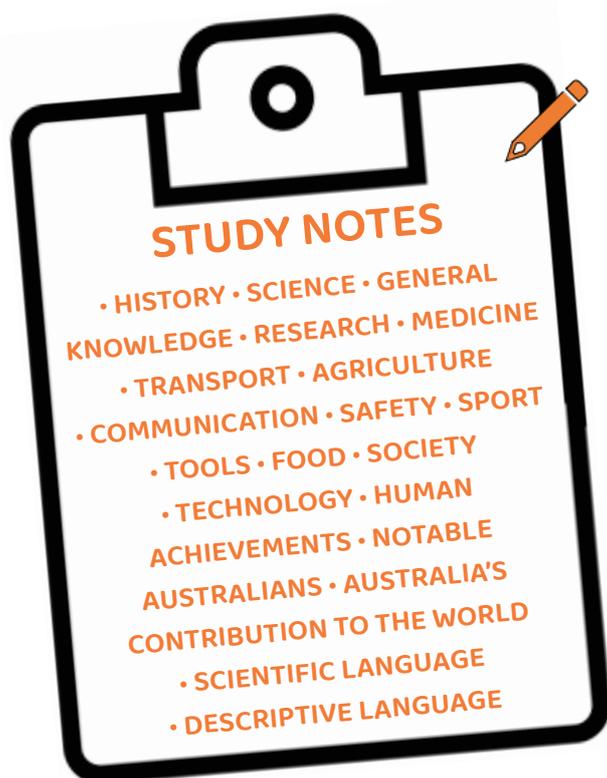
What's the Big Idea? is written for establishing and established readers.

The engaging, minimal text is focussed on Australian inventions and their creators and, combined with the vibrant design, engages readers of all levels and interest. The design and writing style offer many entry points to the information.

What's the Big Idea? is a starting point for further investigation into Australia's contribution to the world as we know it.

Photographic & design style

The design style of *What's the Big Idea?* is bright and energetic. Designer Guy Holt has created a mix of historical and current illustrations and photographs presented in a way to engage with young readers. Clever use of colour for each topic heading ties the different inventions together. Each image has been chosen to add extra detail to the sparse text and should engage with students who are more comfortable with visual literacy.



ABOUT THE AUTHORS



SUE LAWSON

Sue Lawson writes books for children and young adults. Her young adult books are recognised for the sensitive way they explore the exciting and heartbreaking complexities of adolescence. Her books include the award-winning *Freedom Ride*, and picture books, *Respect*, *Family* and *Sharing*, co-written with Boonwurrung Elder, Auntie Fay Muir.

Together Auntie Fay and Sue create books that celebrate and explore Australia's First Nations Peoples' rich culture and history

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KAREN TAYLEUR

Karen Tayleur has worked in advertising, publishing, and the arts for over 30 years. From copywriter to typesetter, author, editor and publisher, she has had the chance to work with some incredibly talented creators over that time. (Including her co-author, Sue Lawson.)

Karen's latest book with wild dog books is *Show Me the Money* which she co-authored with Sue.

Karen would like you to know that she was standing in a ditch for this photo...



Before Reading

As a class discuss what they know about inventions.

- What is an invention?
- Who can invent something?
- What is your favourite invention?

During discussions have students write questions on sticky notes to add to a Wonderings Wall.

Introduce *What's the Big Idea?*

Ask students:

- What do you think this book is about?
- What information do you think will be covered in this book?
- What genre of book might this be?
- Where would you expect to find it in your library?
- What information can you learn about the book from the book's front and back cover?

Discuss:

- What does the blurb add to students' ideas about the book?
- Discuss the line 'Who knew Canberra could be so interesting.'

Identify the following:

- the authors
- the publisher

Discuss the role of the author and publisher.

- Ask children to note what they know, and what they'd like to know about the roles on a KWL chart.

While Reading

Ensure children have paper and pencil available to write down any words, expressions, or names of people they'd like to know more about.

After Reading Discussion

Ask students:

- to share their most interesting discovery from the book
- which is their favourite invention and why
- for their reaction to Australia's role in inventing
- what they have discovered about inventions.

Consider themes such as ideas, ingenuity, persistence, research, and failure.

- What makes an invention successful?
- What qualities would an inventor need?

Return to Thanks, Great Idea, on page 29.

- Discuss why these inventions might not have been successful.
- Discuss why this section might have been included in the book.
- Discuss how the layout of the book affects the readability of the text.

Consider illustrations, photos, small blocks of text, bold and coloured sections of text, layout.

What's the Big Idea? has a glossary and index

- What are the roles of these two features?
- What genre of book has these features?

Revisit the Wondering Wall

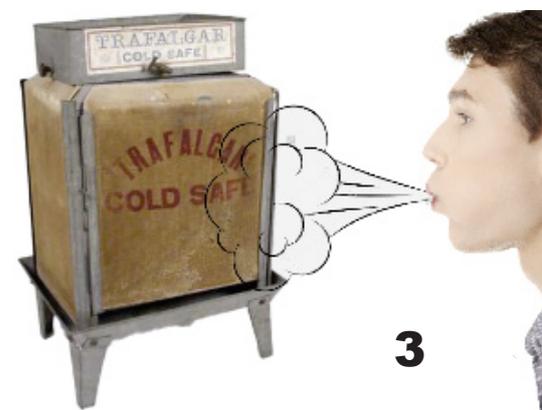
- Were students' wonderings accurate?
- Are there any wonderings that need further investigation?
- Allow students to conduct investigations into any words or descriptions they would like clarified, as well as any Wondering Wall questions not answered.
- Encourage students to share their discoveries with the class.

This can be an individual or group activity.

Longer Activities

Choose a topic from the index

- Ask children to research and create a mini project that elaborates on the information presented in the book.
- Allocate topics or allow children to choose a topic from the subjects covered to explore further.



Young Inventors – School Invention

As a class, revisit what inspires people to invent new objects, machines and tools.

- Show students the Young Inventors – Behind the News segment. <https://www.youtube.com/watch?v=x4xk6zAHWBs>
- Discuss what inspired each young inventor to create something new. <https://www.youtube.com/watch?v=x4xk6zAHWBs>
- Guide the discussion to where children may see a need for something new in the school environment – it might be playground related or something in the classroom. Collate their contributions.
- Choose one need and brainstorm solutions, modelling the process of active listening to all ideas.
- Allocate contributions to groups for children to invent a solution. When completed, groups share their invention with the class. Encourage children to offer and accept constructive feedback.
- To complete the activity, discuss with children how they found the activity and what skills they needed to create something new.

Invention Research Project

As a class, discuss inventions featured in *What's the Big Idea?* In pairs, allow children to select a favourite invention to research, gathering more information that is featured in the book. Each pair creates a project about their chosen invention.

Guidelines for research could include:

- background about the inventor
- what their motivation might be

- a description of what the invention does
- a description of whether the invention improved lives
- if the invention is still used today
- and if still being used, how so?

Repurposing

As a class, discuss Lewis Brandt and the first ute. Focus on his inspiration and how he repurposed an existing object – the car – to create the ute.

- Discuss with students items they might need to make their life easier.
- Following the discussion, have students in pairs, use an existing item to create something new that solves a problem in their life.
- Students illustrate and label their invention, focussing on answering the following questions:
 - What is your invention and what does it do?
 - What problem does the invention solve?
 - Who would use this invention?

Alternatively, pairs could construct their invention and write and record an advertisement for it.

BAR Activity

- Choose one invention relevant to the student's interests and model how by using BAR (Bigger, Add, Replace) you can create a new invention.
- Allocate students a partner and invention and have them apply the BAR thinking skill to it.
- Students share their results with the class verbally or as a poster.

Inventor Profile

Allocate students one of the following inventors to research and then create an Inventor Profile. Include personal details including, date of birth, where they live, their career, their inspiration and new projects they may have pursued.

- Professor Graeme Clark
- Professor Fiona Wood
- Lewis Brandt
- David Unaipon
- Doug Waterhouse
- Thomas Sherrin
- Lance Hill
- Sir Ian Kiernan
- David Warren



