

Teacher Notes

Themes

- Wildlife rescue
- Bushfire recovery
- Humans and animals

Key learning outcomes

- Understand the role of working dogs in wildlife conservation.
- Explore how bushfires affect koala habitats and survival.
- Learn about human efforts to protect and rehabilitate wildlife.
- Develop an understanding of the teamwork between humans and animals.

Key curriculum areas

- **Science:** Science Understanding (Biological sciences)
- **English:** Language; Literature; Literacy
- **The Arts:** Visual Arts

Publication details

Bear to the Rescue

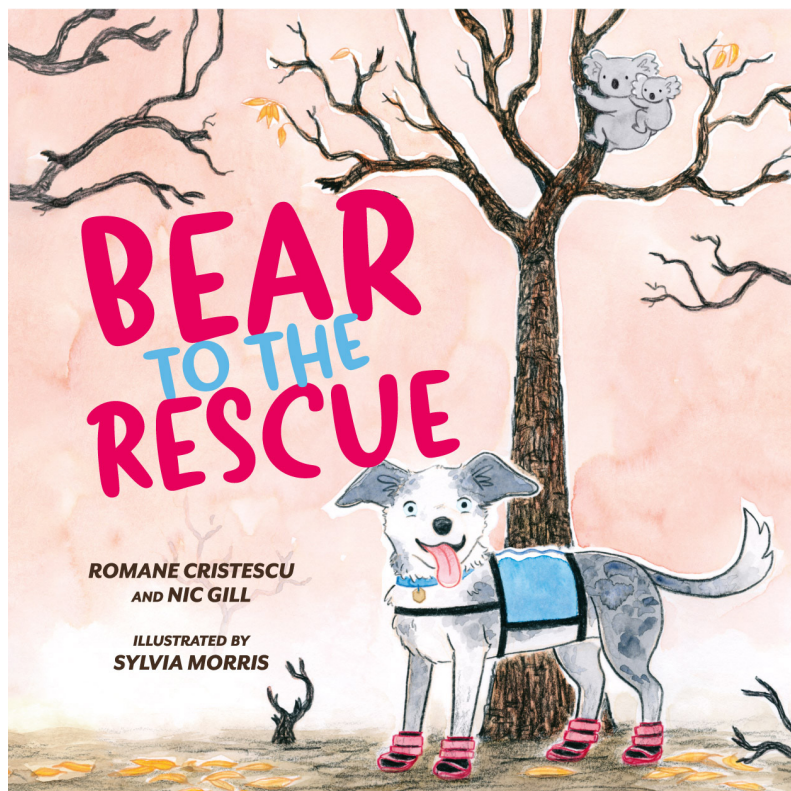
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Bear to the Rescue

Romane Cristescu, Nic Gill
and Sylvia Morris

About the book

Bear is full of energy, which can lead to trouble – until he finds his perfect role as a detection dog!

When deadly bushfires sweep through the forest, Bear and his team must act fast. Will Bear be able to find and help save the wild koalas? Follow the true story of Bear as he finds his purpose for important conservation work.

Recommended for

Readers aged 5–9 (Years 1 to 4)



PUBLISHING

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About the authors and illustrator

Dr Romane Cristescu trained as a vet before studying koala genetics. She is the Director of the University of the Sunshine Coast's Detection Dogs for Conservation, and the trainer/handler/manager of dogs, including Bear, who specialise in finding animals and their poo.

Nic Gill loves to share stories about nature, humans and other animals. After meeting Romane and her dogs, she was so impressed that she became a conservation dog handler herself, and now works with her detection dogs in the Tasmanian wilds.

Sylvia Morris is an illustrator and science enthusiast. She loves illustrating picture books because it combines two of her favourite activities: reading and problem solving.

Pre-reading questions or activities

Dogs

What is a working dog? What jobs can dogs do?

Bushfires

What is a bushfire? How do they start? How do they affect Australian wildlife?

Koalas

What do you know about koalas? Can you describe their habitat?

Discussion questions

Science

1. In *Bear to the Rescue* we learn that Bear is a working dog with lots and lots of energy. Can you explain how Bear helps the scientists and conservationists in the story? Why do the dogs and the humans need to work together like this?
2. Bear gets put to work with the other dogs after a bushfire, and they race to find the koalas. Why do you think the koalas need to be found quickly after a fire has swept through the bush?
3. What special adaptations do the working dogs in our story have that make them such incredible koala detectives?

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4. Using the information and the images from the story you have just read, discuss the impact of bushfires in Australia. Why are they so harmful? Why do they occur so frequently? What can we do to prevent bushfires?
5. After the dogs have done their jobs and detected as many koalas as they can, how do the humans take over and help the koalas? Do you think the humans' role is important for rehabilitating animals? Why?

English

1. At the end of the book the authors include the real story of Bear along with some photographs. Why do you think the authors would choose to include this?
2. *'My name is Bear. When I was a puppy, people thought I was adorable.'*
Bear, the dog, introduces himself to the reader and narrates the story. Now, Bear can't really talk, and is never shown talking to the humans in the story. This is generally referred to as anthropomorphism. Why do you think the authors chose to do this in a story about real animals and real things?

Activities

Science

Flowers after fires

In the story, we observe the devastation that can be caused by bushfires on Australian wildlife and how animals are affected. In some situations fires can have a positive effect on the environment, for example many native flowers have adapted to grow and regenerate after bushfires, particularly native orchids.

For this activity, find a native Australian plant that has adapted to bushfires and create an information report. Outline the life cycle of this plant and the unique adaptations it has developed to survive and prosper after bushfires.

Follow that scent

Bear is chosen to find koalas among the devastation of the bushfires. The reason Bear and the other dogs are chosen for this job is because they have an incredible sense of smell. Once trained to seek out the scent of the koalas, Bear and the other worker dogs can follow the scent and locate the koalas.

To help understand the power of smell, teachers can play this game with their students.

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Materials

- 10–12 small containers (e.g. film canisters, small jars or cups)
- A selection of foods or plants with distinctive, familiar scents, such as vanilla extract, cinnamon, lemon, vinegar, coffee grounds, garlic, peppermint, orange, lavender, onion, banana and chocolate
- Blindfolds
- Labels for numbering the containers
- Recording sheet for students to write their matches and guesses

Set up

- Make two identical sets of containers (i.e. two containers with cinnamon, two with coffee, etc.) for matching.
- Label each container with a letter or number, making sure matching pairs have different labels (to avoid giving away the match).
- Spread the containers out on a table.

How to play

Introduce the activity by discussing how noses can help detect and follow smells.

1. Put the students into small groups or pairs.
2. One student at a time will put on a blindfold, then smell each container and try to find a matching smell from the remaining containers.
3. Students must rely only on their sense of smell, no peeking!
4. When they think they've found a match, they can ask their partner to write down the matching container labels (e.g. A matches with G).
5. After all students have had a turn, review the correct matches together.
6. Students can also try to guess what each of the scents were at the end of the activity.

Discussion

- Which smells were easiest or hardest to recognise?
- Did any of them remind you of something from home or a memory?
- Why do you think we remember smells so well?

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English

Creative writing

'There were no more leaves. There were no more grasses. There were only ashes.'

Use this captivating passage from the text as a prompt for some creative writing. You can be inspired by the events of the text or take it in your own direction. You can use this prompt to write a story that highlights the damage caused by bushfires, or you can take it in a more positive direction and show the reader the beauty and regrowth that can come from fires.

Anthropomorphism

As we saw in the story, the authors used *anthropomorphism* as a means to tell the story from the point of view of Bear and engage the reader. Today you will practise this technique by choosing your very own animal to anthropomorphise.

First, choose an animal. Next, write down some personality traits that you believe match your chosen animal. Are they a sleepy koala, a head-strong wombat, a playful platypus? Then write a short introduction for your animal character that highlights their personality and what makes them a unique animal.

The Arts

Bushfire art

As discussed, bushfires can have devastating effects on the environment, but the rich and contrasting colours of these natural disasters have inspired many artists over the years. This is because art can be used to deal with and express one's emotions, and creating artwork inspired by these devastating natural disasters can highlight the immense power of the fires, and the fear and despair that is experienced by humans and animals confronted by fires.

Today you will create your own piece of bushfire art that highlights the power of the fire and contrasts the charred remains of the environment.

Materials

- Yellow, red, orange and black paint
- White paper
- Paint brushes
- Cup of water for brushes

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Steps

1. On a plain white piece of paper, combine strokes of red, orange and yellow paint. Be experimental with your strokes, change direction, and swirl the paint to mimic the movements of fire.
2. After the page is completely covered in red, orange and yellow paint, leave it to dry completely.
3. Once the paint is completely dry, use the black paint to illustrate the remains of the bushfire. You might draw the charred remains of a tree with no leaves, or an old shed or fence from a farm. Be sure to use sharp, bold strokes to truly contrast the black paint against the fiery backdrop.

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Australian Curriculum Links (Version 9.0)

Year level	Learning area: Science	Other learning areas
Years 1/2	<p>Science Understanding: Biological sciences</p> <ul style="list-style-type: none"> Identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs (AC9S1U01) 	<p>English: Language: Text structure and organisation</p> <ul style="list-style-type: none"> Explore how texts are organised according to their purpose, such as to recount, narrate, express opinion, inform, report and explain (AC9E1LA03) <p>Language for expressing and developing ideas</p> <ul style="list-style-type: none"> Experiment with and begin to make conscious choices of vocabulary to suit the topic (AC9E2LA09) <p>English: Literature: Literature and contexts</p> <ul style="list-style-type: none"> Discuss how language and images are used to create characters, settings and events in literature by First Nations Australian, and wide-ranging Australian and world authors and illustrators (AC9E1LE01) <p>English: Literacy: Interacting with others</p> <ul style="list-style-type: none"> Use interaction skills including turn-taking, speaking clearly, using active listening behaviours and responding to the contributions of others, and contributing ideas and questions (AC9E1LY02) Use interaction skills when engaging with topics, actively listening to others, receiving instructions and extending own ideas, speaking appropriately, expressing and responding to opinions, making statements, and giving instructions (AC9E2LY02) <p>The Arts: Visual Arts</p> <ul style="list-style-type: none"> Experiment and play with visual conventions, visual arts processes and materials (AC9AVA2D01) Use visual conventions, visual arts processes and materials to create artworks (AC9AVA2C01)
Years 3/4	<p>Science Understanding: Biological sciences</p> <ul style="list-style-type: none"> Compare characteristics of living and non-living things and examine the differences between the life cycles of plants and animals (AC9S3U01) 	<p>English: Language: Text structure and organisation</p> <ul style="list-style-type: none"> Describe how texts across the curriculum use different language features and structures relevant to their purpose (AC9E3LA03) <p>English: Literature: Examining literature</p> <ul style="list-style-type: none"> Discuss how an author uses language and illustrations to portray characters and settings in texts and explore how the settings and events influence the mood of the narrative (AC9E3LE03) <p>English: Literacy: Interacting with others</p> <ul style="list-style-type: none"> Use interaction skills to contribute to conversations and discussions to share information and ideas (AC9E3LY02) <p>The Arts: Visual Arts</p> <ul style="list-style-type: none"> Experiment with a range of ways to use visual conventions, visual arts processes and materials (AC9AVA4D01) Use visual conventions, visual arts processes and materials to create artworks that communicate ideas, perspectives and/or meaning (AC9AVA4C01)

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Related books from CSIRO Publishing

- *Alight: A Story of Fire and Nature* (<https://www.publish.csiro.au/book/8045>)
- *Creature Corridors* (<https://www.publish.csiro.au/book/8147>)
- *Purinina* (<https://www.publish.csiro.au/book/8105>)

By the same author team:

- *Poo, Spew and Other Gross Things Animals Do!* (<https://www.publish.csiro.au/book/8021>)

Other CSIRO resources

CSIRO has developed and delivered a broad range of high-quality STEM education programs and initiatives for nearly 40 years. Our programs aim to inspire the pursuit of further STEM education among students and the community, to equip the emerging workforce with tomorrow's skill sets, and to strengthen collaboration between industry and classrooms across Australia. For more information visit: <https://www.csiro.au/en/Education>