Teacher Notes

Themes

- Australian animals
- Rhyming
- Shapes

Key learning outcomes

- Learn that animals are different and poo differently too.
- Investigate 2D and 3D shapes.
- Identify rhyming words and discuss why they rhyme.

Key curriculum areas

- **Science:** Science Understanding (Biological sciences); Science Inquiry
- **English:** Language; Literature
- **Mathematics:** Measurement; Space
- **Cross-curriculum Priority:** Sustainability

Publication details

Wombat Poos Are Square

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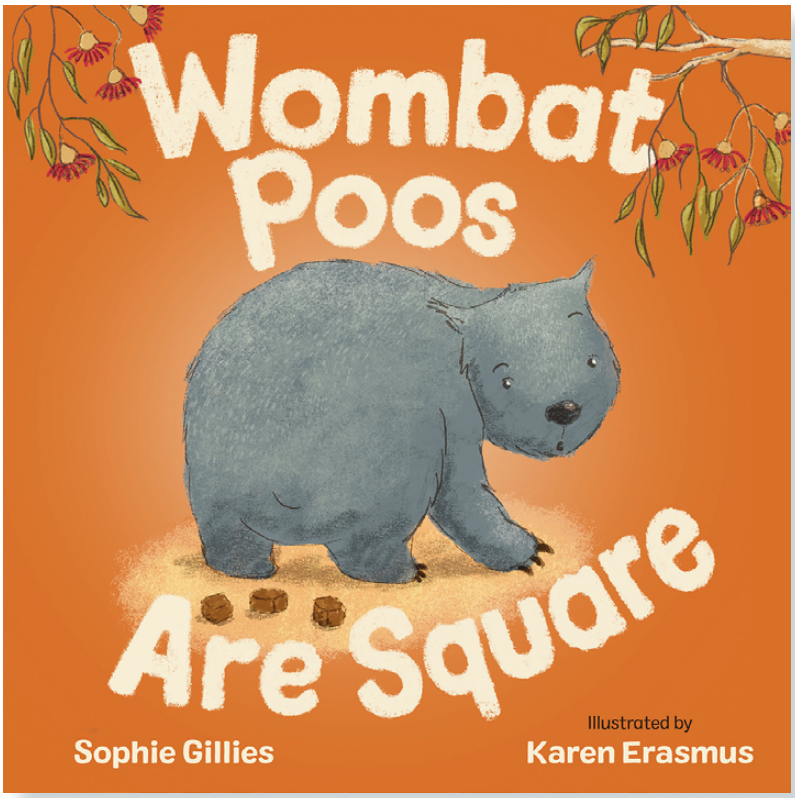

Wombat Poos Are Square

Sophie Gillies and Karen Erasmus

About the book

All Australian creatures from galahs and potoroos, to stingrays and goannas, do their own distinctive poos.

Discover which animal has sparkly poo, who poos hundreds of times a day and, of course, whose poos are square! With whimsical illustrations and humorous text, *Wombat Poos Are Square* explains the important role poo plays in our environment.

Recommended for

Readers aged 5 to 9 (Years 1 to 4)

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Teacher Notes

About the author and illustrator

Sophie Gillies has taught English and Environmental Studies to children and adults and has a Creative Writing degree. She enjoys running and gardening and lives with her family in Canberra.

Karen Erasmus has been illustrating material for children for many years. She lives on the south coast of Australia with her three dogs, five chickens, grown-up children and husband. Karen loves the diversity and quirkiness of Australian wildlife.

Pre-reading questions or activities

Get students to draw their favourite Australian animal or, with older students, play a game of Categories on Australian animals.

Categories is played by each student or group of students writing down as many Australian animals as possible in 2 minutes. Once the 2 minutes is up, each team takes it in turn to read out the animals that they named. If another team has that animal or the animal is not an Australian animal, it is crossed out by all teams. At the end, teams count how many animals they have that are not crossed out. The team with the biggest number wins.

We are going to read a book about Australian animals and the fact that all animals do poos. This book is going to highlight something interesting about wombat poos that is different from most animals.

Let students guess what is different about wombat poos. At the end of the book, ask students if they now know what is interesting about wombat poos and if they guessed correctly.

Discussion questions

Science

1. Why do animals poo? *To remove the waste from the food they eat from their bodies.*
2. When animals eat food, what organs help them get the nutrients they need out of the food and remove the waste from their bodies? *Mouth, teeth, oesophagus, stomach, small intestine, large intestine, rectum, anus.*

3. Why do you think wombats make square-shaped poos? *As wombats are territorial, they like to use poo to mark where they live. They make them square-shaped instead of round so the poo does not roll away or down into their burrow.*
4. What does poo do for the environment? *Fertilises the soil, helps germinate seeds, helps phytoplankton to produce oxygen, spreads fungus to support tree growth.*

English

1. The page opposite the one with the wallabies and kangaroos says 'and wombat poos are square!' How should we read this sentence? *It should be read louder because of the exclamation mark.*

Mathematics

1. What 3D shapes are most of the animal poos in the book? *Spheres and ovoids*
2. What 3D shapes are wombats poos? *Cubes*

Activities

Science

Yard discovery walk

SAFETY: Do not touch the poo, and make sure to wash your hands after being outside.

Go for a walk outside and notice the different types of poo that are in the garden. Different animals have different types of poo because of what they eat and how their digestive system works. Discuss the differences between the poos. Older students could research why different animals have different poos. Students can take photos of the poo to record what they find.

Experiment of rolling 3D shapes

Wombat poos are cubes so they don't roll away. Let's do an experiment to see which 3D shapes that aren't spheres can roll the best.

You will need:

- Icy-pole/craft sticks
- Reusable adhesive (e.g. Blu tack)
- Some type of ramp (this can be made with a piece of wood rested against something)
- Measuring tape

What to do:

1. Make a 3D shape out of icy-pole sticks and reusable adhesive. This could be a cube, triangular prism, square-based pyramid, etc.
2. Place the shape on the top of the ramp and let go.
3. Record how far the shaped rolled.
4. Repeat steps 2 and 3 two more times.
5. Now try a different shape.

Which shape rolled the farthest distance? Which shape rolled the shortest distance?

English

Rhyming words

In the book many words rhyme. To support students with identifying rhyming words, go through the book and place a sticky note over the second word that rhymes.

For example: 'All Australian creatures from galahs and **potoroos** to stingrays and goannas do their own distinctive **poos**.' 'Potoroos' and 'poos' are a pair of rhyming words, so cover the second one (poos).

When you read the book with the students, get them to guess the covered word. It will help if you read the book with a distinct beat just as if you were reading a poem.

Then reveal the word and discuss why it rhymes. *They rhyme because the last three letters are the same*, or for words that have different letters but still rhyme: *They rhyme because they both end in the same sound.* Discuss with the class that both groups of letters can make the same sound.

Australian animal word search

On page 6 is a word search. Ask students to find each animal listed in the word search grid.

Mathematics

3D and 2D shapes

The text 'wombat poos are square' describes the face of the poos, but they are in fact cubes. Using playdough, get students to create different 3D shapes and then ask them to identify and discuss the features of these shapes.

Use the worksheet on the next page to assist with this activity. The first shape is filled in for you. Going through this with the students will help them to make the next lot of shapes. The shapes start at Year 1 and get more complex to Year 3. This is a good way to extend students or only do the shapes that meet the needs of the students.

Worksheet: *3D and 2D shapes*

Name:_____

Name of 3D shape	Number of vertices	Number of edges	Apex? Y or N	Number of curved surfaces	Number of faces	Draw or name the 2D shape of the faces
Square-based pyramid	4	8	Y	0	5	4 triangles  1 square 
Cube						
Sphere						
Rectangular prism						
Triangular prism						
Triangle-based pyramid						
Pentagon prism						
Octagon-based pyramid						

Name:_____

Australian Animal Word Search

P O T O R O O J W Q U E N D A
G X I C O C K A T O O X W Y J
J P R K I C A S S O W A R Y B
D M R L I Z A R D J C F S K I
U W W B D F P Q U O L L T E Z
C P A R R O T F I S H G I W P
K K L D R E M U X Y C O N L S
S O L M I C R O B A T A G Z N
A E A I G A L A H V J N R Z A
O C B L U W O M B A T N A S K
L H Y U A X Y H T R F A Y E E
F I S F B A N D I C O O T A B
J D J C K J G U H D A Z R L I
F N W I M K Z X F F A Z N V R
K A U K A N G A R O O T Q W D

Parrotfish
Kangaroo
Cockatoo
Wombat
Galah
Quoll
Duck
Bandicoot
Microbat
Potoroo
Echidna
Goanna
Koala
Cassowary
Stingray
Wallaby
Lizard
Quenda
Snake
Emu
Seal
Bird

Australian Curriculum Links (Version 9.0)

Year level	Learning area: Science	Other learning areas
Year 1	**Science Understanding: Biological sciences** • 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) **Science Inquiry: Planning and conducting** • Suggest and follow safe procedures to investigate questions and test predictions (AC9S1I02) • Make and record observations, including informal measurements, using digital tools as appropriate (AC9S1I03)	**English: Language** • Understand how language, facial expressions and gestures are used to interact with others when asking for and providing information, making offers, exclaiming, requesting and giving commands (AC9E1LA01) • Explore how repetition, rhyme and rhythm create cohesion in simple poems, chants and songs (AC9E1LA04) **Mathematics: Space** • Make, compare and classify familiar shapes; recognise familiar shapes and objects in the environment, identifying the similarities and differences between them (AC9M1SP01)
Year 2	**Science Inquiry: Planning and conducting** • Suggest and follow safe procedures to investigate questions and test predictions (AC9S2I02) • Make and record observations, including informal measurements, using digital tools as appropriate (AC9S2I03)	**English: Literature** • Identify, reproduce and experiment with rhythmic sound and word patterns in poems, chants, rhymes and songs (AC9E2LE04) **Mathematics: Space** • Recognise, compare and classify shapes, referencing the number of sides and using spatial terms such as "opposite", "parallel", "curved" and "straight" (AC9M2SP01)
Year 3	**Science Understanding: Biological sciences** • Compare characteristics of living and non-living things and examine the differences between the life cycles of plants and animals (AC9S3U01) **Science Inquiry: Planning and conducting** • Use provided scaffolds to plan and conduct investigations to answer questions or test predictions, including identifying the elements of fair tests, and considering the safe use of materials and equipment (AC9S3I02) • Follow procedures to make and record observations, including making formal measurements using familiar scaled instruments and using digital tools as appropriate (AC9S3I03)	**Mathematics: Measurement** • Measure and compare objects using familiar metric units of length, mass and capacity, and instruments with labelled markings (AC9M3M02) **Mathematics: Space** • Make, compare and classify objects, identifying key features and explaining why these features make them suited to their uses (AC9M3SP01)
Year 4	**Science Understanding: Biological sciences** • Explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships (AC9S4U01) **Science Inquiry: Planning and conducting** • Use provided scaffolds to plan and conduct investigations to answer questions or test predictions, including identifying the elements of fair tests, and considering the safe use of materials and equipment (AC9S4I02) • Follow procedures to make and record observations, including making formal measurements using familiar scaled instruments and using digital tools as appropriate (AC9S4I03)	**Mathematics: Measurement and Geometry** • Interpret unmarked and partial units when measuring and comparing attributes of length, mass, capacity, duration and temperature, using scaled and digital instruments and appropriate units (AC9M4M01)
All	**Cross-curriculum Priority: Sustainability: Systems** • All life forms, including human life, are connected through Earth's systems (geosphere, biosphere, hydrosphere and atmosphere) on which they depend for their wellbeing and survival (SS1)	

Related books from CSIRO Publishing

For younger readers:

- *Dung Beetle on a Roll* (https://www.publish.csiro.au/book/8184)

For older readers:

- *Poo, Spew and Other Gross Things Animals Do!* (https://www.publish.csiro.au/book/8021)
- *Sensational Australian Animals* (https://www.publish.csiro.au/book/8094)

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