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AUSTRALIA'S MEGAFAUNA



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LAURA HOLLOWAY



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WITH
ILLUSTRATIONS
BY
LIZ
DUTHIE



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TEACHERS' NOTES

BLURB

Millions of years ago, the animals that roamed Australia
were not just big – they were MEGA!

METADATA

AUTHOR: Laura Holloway
ILLUSTRATOR: Liz Duthie
ISBN: 9781742036830
SIZE: 270mm x 230mm
FORMAT: Hardback
EXTENT: 40pp
RRP: \$24.99
READING LEVEL: 7 years +
INTEREST LEVEL: 5 years +
GENRE: Juvenile Non-Fiction

CURRICULUM

Science: Biological Sciences,
 Earth and Space Sciences
 English
HASS: History, Geography
 The Arts
 Technologies

Cross-curriculum priorities
 Aboriginal and Torres Strait
 Islander Histories and Cultures
 Sustainability

THEMES

Australian megafauna
 Palaeontology
 Archaeology

Animal adaptations
 Aboriginal & Torres Strait
 Islander histories

	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Science	AC9S2I02 AC9S2I04	AC9S3I04	AC9S4I06 AC9S4I04	AC9S5U01 AC9S5I01 AC9S5I04 AC9S5I06	AC9S6U01 AC9S6I04 AC9S6I06
HASS	AC9HS2K01	AC9HS3S02	AC9HS4K01 AC9HS4K05	AC9HS5S06	AC9HS6S04
The Arts		AC9AMA4E02 AC9AVA4E01 AC9AVA4C01		AC9AVA6E01 AC9AVA6E02 AC9AVA6C01	
English	AC9E2LA02 AC9E2LA03 AC9E2LA05 AC9E2LA08 AC9E2LE02 AC9E2LY02 AC9E2LY03 AC9E2LY05 AC9E2LY06	AC9E3LA02 AC9E3LA03 AC9E3LA05 AC9E3LA09 AC9E3LE05 AC9E3LY02 AC9E3LY03 AC9E3LY05 AC9E3LY06	AC9E4LA02 AC9E4LA03 AC9E4LA10 AC9E4LE05 AC9E4LY02 AC9E4LY03 AC9E4LY05 AC9E4LY06	AC9E5LA03 AC9E5LE02 AC9E5LE05 AC9E5LY02 AC9E5LY03 AC9E5LY04 AC9E5LY05 AC9E5LY06	AC9E6LA02 AC9E6LA03 AC9E6LA07 AC9E6LE05 AC9E6LY02 AC9E6LY03 AC9E6LY04 AC9E6LY05 AC9E6LY06
Technologies	AC9TDE2P01 AC9TDE2P02 AC9TDE2P04	AC9TDE4P01 AC9TDE4P03 AC9TDE4P04		AC9TDE6P01 AC9TDE6P03 AC9TDE6P05	

LAURA HOLLOWAY

Laura Holloway blends casual narration with simple facts in her unique approach to science. What could be dense, dry subject matter comes alive when she adds her funny throw away lines and familiar references that students of all ages will gravitate to. Comprehensive research presented in a conversational tone makes *Mega! Australia's Megafauna* an easy read for all reading levels. It is clear from the wonder in her tone that she too is in awe of these enormous creatures.

LIZ DUTHIE

Liz Duthie is also a diligent researcher and she approaches this scientific topic with artistic vision. Using acrylic paints on canvas, Liz's work is characterised by varying textures and palettes. At times, the paint application is thick, creating bold colours that spark imagination. At other times she is sparing, leaving clear brush strokes on the page that draw parallels with the work of palaeontologists brushing dirt from a fossil in the field.

BEFORE READING

Brainstorm what you already know about Australian megafauna. Create a list of questions you have. After reading, come back to the questions to see if any were answered. You may choose to use a KWL chart to organise learning.

Look closely at the book's front and back covers. Can you spot the title, author, illustrator, blurb and spine? What predictions can you make about the book based on the cover illustrations, colours and title?

DURING READING

While reading the text, actively highlight features such as images, captions, and headings that help readers navigate the text and support comprehension. Draw attention to the timeline, glossary and endpapers. Encourage students to ask clarifying questions and promote open class discussion to check for understanding and build shared knowledge of the features of non-fiction texts.



AFTER READING

Make salt dough fossil impressions from animal figurines. While you're unlikely to find any Australian megafauna toys, you can substitute using plastic bones, dinosaurs, insects or modern Australian animals.

Use a piece of string or paper streamer to make predictions, then mark out the lengths of various megafauna featured in the book.

Select a megafauna species to research further. Consider the physical and behavioural adaptations that allow your animal to thrive in its habitat. Present your findings as an illustrated fact file, information report or a multimedia presentation.

Write a fictional story set in Pleistocene Australia. Think about what the continent was like at that time to describe a realistic setting.

Look online to view some of the rock art which is believed by some to show megafauna species. Evaluate the sources and discuss what you think they show: <https://www.pamacentre.org.au/megafauna-and-rock-art/>

What are some natural and human threats to Indigenous rock art and other culturally significant sites, and what actions can be taken to protect them? Why is it important to work closely with Traditional Owners when making decisions about these sites?

How do scientists use clues from fossil digs to predict what ancient animals looked like, how they moved and where they lived?



Imagine you're a palaeontologist on a fossil dig. Make predictions about the fossils you find, for example:

- You have found a very sharp tooth, is it likely the animal it came from was a carnivore or herbivore?
- You found many fossilised bones in the same location. The bones appear to be from the same species, but are all different sizes. Is it likely your animal was a solitary or herd animal?
- You've found the fossilised skeleton of a huge bird with strong legs and tiny wings. How do you think this animal moved through its environment?
- You've found a molar tooth about the size of your fist. What type of animal do you think it came from? What does the tooth shape tell you about its diet?
- You find powerful jawbones with sharp slicing teeth and retractable claws nearby. What megafauna species do you think you've found?
- You come across fossilised eggs in a shallow nest. What type of animal could they NOT have come from?
- You discover a fossilised claw that is broad, strong, and blunt. Do you think it was used for hunting, climbing or digging?
- You've discovered hollow bones with a long, narrow structure. What sort of animal would benefit from having hollow bones?
- You uncover fossilised fish remains in a desert habitat. What does this tell you about how the area has changed over time?

Consider Duthie's artwork throughout the book. Observe how she uses materials, patterns, colours, and composition to communicate meaning. Explore the artwork more deeply with discussion questions, such as:

- How do the illustrations add meaning to the text?
- How do the materials and techniques used add texture or detail to the illustrations?
- What new things can I notice if I take a second or slower look at this artwork?
- How does the choice of colour influence the mood or message of the illustrations?
- Does this illustration style match what I usually see in non-fiction texts? Why might the artist have chosen this approach?
- Focusing on one image, consider where your eyes are first drawn to. How has the illustrator guided your focus?

Choose one of the animals from the book and create an artwork using the style and materials of your choice, including painting, drawing, collage, digital art, etc. Consider what makes this animal unique, its habitat, and which colours, shapes, or patterns will help tell its story. Artworks can be displayed on a gallery wall with an accompanying fact, scientific question and/or artistic reflection.

Write a review of *MEGA! Australia's Megafauna*. What is the purpose of the book? What did you like and dislike? What was your favourite part? Who do you think is the ideal audience for this book? Would you recommend it to others? If so, who?

DISCUSSION QUESTIONS

Some megafauna live on today, such as blue whales and elephants. How many can you name?

Palaeontologists and archaeologists study past life on Earth. Why do you think it's important to learn about the past? How can learning about the past help us make decisions about the present and future?

Would you like to be a palaeontologist? What attributes do you think palaeontologists need in their work? What do you think would be the best and worst parts of the job?

How would life in Australia be different if all the past megafauna species were not extinct? Which extinct megafauna species would you least like to meet?

The illustrator of the book can't be sure what colour or pattern each animal had as hair and skin are rarely preserved as fossils. They have made predictions based on the colours of present-day relatives and the habitats in which they lived. Look through the book and identify any features that would have helped camouflage the animals, allowing them to hide from predators or ambush prey.

How might changes in temperature, rainfall, and vegetation have affected the survival of Pleistocene megafauna?

What can archaeological sites tell us about the long history and lifestyles of First Nations Australians?

How can you find the meaning of a word you don't understand in a non-fiction book?

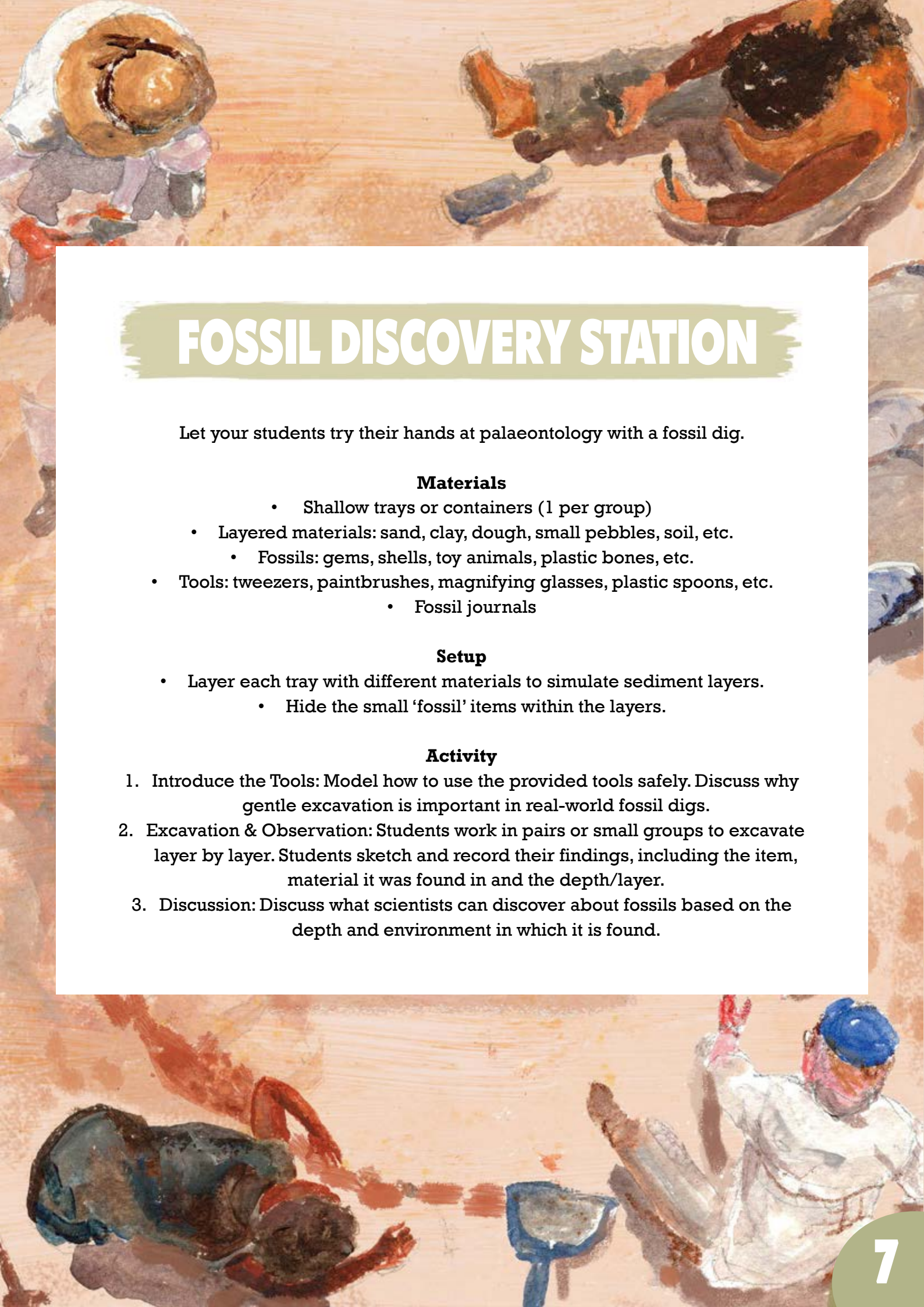
Do you prefer fiction or non-fiction books? Why?

Can you find examples of objective and subjective language in the text? Which is more common in non-fiction texts?



WORKSHEET IDEA

Use the unlabelled endpapers at the end of this resource to create worksheets. Ask students to label each silhouette with the common name for the megafauna it represents.



FOSSIL DISCOVERY STATION

Let your students try their hands at palaeontology with a fossil dig.

Materials

- Shallow trays or containers (1 per group)
- Layered materials: sand, clay, dough, small pebbles, soil, etc.
 - Fossils: gems, shells, toy animals, plastic bones, etc.
- Tools: tweezers, paintbrushes, magnifying glasses, plastic spoons, etc.
 - Fossil journals

Setup

- Layer each tray with different materials to simulate sediment layers.
 - Hide the small 'fossil' items within the layers.

Activity

1. Introduce the Tools: Model how to use the provided tools safely. Discuss why gentle excavation is important in real-world fossil digs.
2. Excavation & Observation: Students work in pairs or small groups to excavate layer by layer. Students sketch and record their findings, including the item, material it was found in and the depth/layer.
3. Discussion: Discuss what scientists can discover about fossils based on the depth and environment in which it is found.

MEGAFAUNA SHOEBOX DIORAMA

Design and create a 3D shoebox diorama showing an Australian megafauna species in its natural habitat. Include details about its physical features, environment, and behaviour. Use materials of your choice to model the animal and habitat, such as air-dry clay, plasticine, recycled materials and natural objects, such as leaves and gumnuts.

Planning

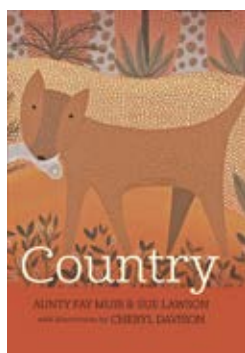
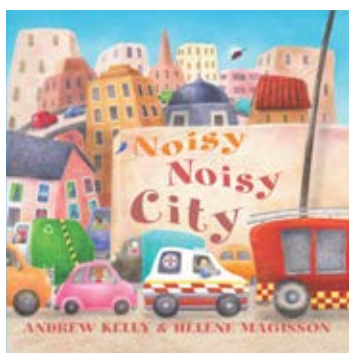
- What animal will you design?
- What does it need to survive?
- What will you include to show its habitat?
- Annotate your design sketch with features linked to scientific reasoning (e.g. claws for digging, waterhole access, etc.)

Reflection

- Why did you choose those materials? (Consider material properties, availability and sustainability)
 - How does your habitat match the needs of your megafauna?
- Explain how your diorama shows physical and behavioural adaptations for survival.

OTHER WILD DOG TITLES

Wild Dog Books has an impressive range of books to answer questions and stimulate young minds. From fact-filled non-fiction series through to individual titles, the Wild Dog non-fiction range is the ideal complement to our selection of fiction books and award-winning picture books by Australian writers and illustrators.



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