DISCOVER KOALAS

BEFORE YOUR EXCURSION

Listen to this male koala bellowing. Discuss with your class, what do you think this koala is communicating?

- Why do koalas make sounds?
- Why do people make sounds?
- What other sounds do you predict you'll hear when you visit the bushland habitat at the Koala Conservation Reserve?

Remember to ask a ranger or one of our koala volunteers about koala communications during your visit.



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RESERVE

DURING YOUR EXCURSION

OCK

Look out for these signs on the tree top board walks. They indicate which trees the koalas are currently located in. Stop at the signs and look for a koala.

DLISTEN

STOP AND LISTEN

- Are there any sounds the koala is making? Are there any sounds people are making?
- Can you hear birds? Can you hear any frogs?

Common native birds at the Koala **Conservation Reserve include** magpies, kookaburras, wattlebirds, galahs and fairy-wrens. Frog species you might hear include: Common froglet and Eastern banjo frog.



TEACHER INFO:

Other animals common to the Koala Conservation Reserve include swamp wallaby, brushtail and ringtail possum. Keep a sharp eye out for bluetongue lizards, skinks, bees, butterflies, moths, spiders, beetles and ants. You might also see lowland copperhead!

OLOOK

Eyes up to the sky, can you see a koala up high in the branches from the board walk? Why do you think koalas will find a high place to sleep?

 Look for koala pathways, find some scratch marks, can you see any bark peeling? What do these marks tell us about how the koala has been moving in this habitat?

Can you find koala scats on the boardwalk?



Listen to this word: gurrborra

TEACHER INFO:

The Traditional Owners of Millowl (Phillip Island) are the Bunurong. Gurrborra is the Bunurong name for koala and koala itself is an Aboriginal name that most likely comes from the Dharug language, Country near Sydney in NSW. 'Koala' or 'koolah' is a Dharug word which means no water or drink. Koalas don't often drink water they gain water from the eucalyptus leaves they eat.

Listen to the Scientific name (Latin name) for koalas: Phascolarctos cinereus

M TASTE

Have you ever tasted eucalyptus flavoured food?

SMELL

- · Pick up a fresh eucalyptus leaf and crush it between your fingers. How does it smell?
- How do koalas use eucalyptus leaves?

TEACHER INFO:

There are over 500 eucalyptus trees but koalas only eat around 12 favorite types.

Koalas have a remarkable biology designed to extract nutrients from eucalyptus leaves. Gum trees actually produce a toxin in the eucalyptus leaf to protect them from insects, however, koalas' digestive systems are adapted to detoxify these chemicals from the leaves.

Koalas depend on gum trees for habitat, shelter, and food.

How do humans use eucalyptus leaves?

TEACHER INFO:

Leaves can be used both fresh and dried as air fresheners and can be processed into oils, ointments and sprays and are often used in cough medicine, dental products and aromatherapy.

If you had to choose only one food to eat forever, what would it be?

p Island

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AFTER YOUR EXCURSION

LEARN MORE ABOUT KOALA'S BIOLOGY AND ADAPTATIONS

View a 3D model of a koala:

Koala Nature Notes:





ACT FOR WILDLIFE

Koalas in NSW and QLD are predicted to become extinct in the wild within 10 years. Victorian koala populations are currently doing ok with an estimated 460,000 individuals in the wild. But, Victorian koalas are also threatened by mass clearing of bushland habitat, a warming climate and bushfires.

What can we do to help this iconic Australian species?

STUDENT CHALLENGE:

Use the internet to search for the koala's current status of a species. Are koalas endangered? Threatened? Vulnerable? What do these words mean?

SUPPORTING RESOURCES:

Threatened Species Lists and Status Resources <u>Threatened species advisory lists</u> <u>Red List status</u>



"Australia clears native habitat faster than any developed country on earth. If we don't halt and reverse our reckless tree-clearing rate, koalas could be extinct by 2050."*

<u>Visit WWF</u> (Worldwide Wildlife Fund) to discover the way donations can help protect Koalas and the bushland habitat they require. *Source: WWF

Tips

- Look for the FSC and the recycling symbol on the products we buy.
- We can recycle by carefully putting the right things into our recycling bins at home and at school. Paper or cardboard that has no staples and is clean all go in the recycling bin but dirty or greasy paper or cardboard like pizza boxes can go in the green waste bin to break down into soil.
- We can also choose to purchase 100% recycled paper.

Student Challenges

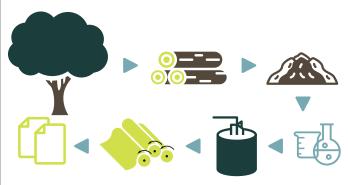
- Find out if your school books are made from recycled paper?
- Find out what can you write on instead of paper? E.g. reusable writeable surfaces.
- What are 3 things you can use or turn scrap paper into?

Australians are doing a great job buying and using recycled writing and printing paper but there is another type of paper where we could change our buying habits!

How can recycling help?

Reusing, recycling and reducing our impact on the koala's habitat by cutting down fewer native trees, planting more native habitat and helping fund conservation research are all ways to help.

Paper is made from trees, we can choose recycled paper or paper sourced from sustainably planted trees which are not koala habitat. Trees are cut and made into a pulp to produce paper. A lot of water, energy and chemicals are used to dye the paper.



Look for the FSC Symbol on the paper products you buy.

Products approved by <u>the FSC</u> (Forest Stewardship Council) come from sustainably managed forests.

Student questions

- Does your school use recycled toilet paper?
- Does your family use recycled toilet paper? A small change can make a big difference, so let's make this change for koalas!



Phillip Island NATURE PARKS

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Suitable for Primary Year Levels 5-6 and Secondary Levels 7-8. BYO Clipboards and Pencils during the excursion!

KOALA DISCOVERY

Student-led investigation into koalas and the management strategies used for their conservation.

WHAT (learning goals)

- Discover and describe some of the features and adaptations that make koalas so well adapted for their bushland environment.
- Discover and describe some of the ways (management strategies) the Nature Parks cares for koalas and minimises the impact of people on the animals in our care.

WHY (why learn about this stuff?)

• Understanding how animals have evolved and adapted to their environments can help people as we create designs that need to function in different environments.

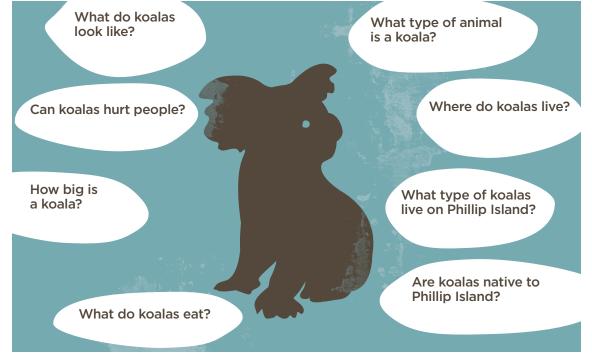
HOW (before excursion)

Discuss your understanding of these words and phrases with your teacher:

Circle the resources you will use to gather information and answer your question:

Structural Adaptations (featur	res) Beh	Behavioral Adaptations (behaviours)			Evolution E		Environment		Conservation	
Conservation Management	Tourists	Conservation Ranger	Bushl	and	Habitat	t N	Native Specie		Sustainable	

Class brainstorm: what do you already know about koalas?





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RESERVE

HOW

(DURING EXCURSION - you will need a printed copy of this page, a clipboard and pencil)

- Work with a partner to make observations as you explore the koala boardwalks.
- Read and discuss each question with your partner and write down your best answers; remember this is your investigation phase so your answers do not need to be correct.
- At the end of your investigation meet back with your teacher to discuss your observations and thoughts and compare them with information from our expert koala conservation rangers.

1	Look for plastic rings on the gum trees. What are these rings for? Why are they only on some gum trees?	6	Find a koala and closely observe their fur. Why do koalas have such thick fur?
2	Look for koala scat (poo) on the ground below or maybe on a handrail. How would you identify which scat belongs to a koala?	7	Can you see a koala wearing coloured ear tag? Why do the koalas each have a different coloured tag on their ear?
3	Look for scratch marks on trees and branches. What causes these marks and why do koalas have such strong and sharp claws?	8	Look closely at a koala's face . Which senses do they rely on to survive? Koalas need to find their food, detect predators and locate other koalas.
4	Gurrborra is a Bunurong name for koala. The word 'koala' is also an Aboriginal name meaning 'no drinking'. While koalas occasionally do drink fresh water, where do they get most of their water needs from?	9	Look closely at the features of a koala's face. What are the structural adaptations (features) which give koalas these amazing senses? Can you describe these features?
5	A problem for koalas is that sometimes they overeat from a favourite eucalyptus tree. Look for something the conservation rangers provide for the koalas fresh every day. What is it?	10	At the Nature Parks our Research team shares information with our conservation rangers who look after the koalas day-to-day aiming to keep them healthy and safe in their semi-wild enclosures. Look for any classmates who might need some help and share some of your information .



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RESERVE

We acknowledge the Traditional Owners of the land on which we live, work and learn, the Bunurong. We pay our respects to their Elders past and present.

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HOW

(AFTER EXCURSION - Teacher information to enable a whole class discussion to compare information and clarify understandings)



Look for plastic rings on the gum trees.

What are these rings for? Why are they only on some gum trees?

A: Plastic rings deter koalas and possums from climbing and accessing food (leaves) from that tree. If we want to give a tree a break and ensure its health, we will install a ring.



Look for koala scat (poo) on the ground below or maybe on a handrail.

How would you identify which scat belongs to a koala?

A: Students might consider: the scent of the scat. Koalas primarily eat eucalyptus leaves so scat will smell strongly of eucalyptus. Koala poo is about the shape and size of an olive. Koalas produce a lot of scat - up to 360 pellets in 24hrs!



What causes these marks and why do koalas have such strong and sharp claws?

A: Koalas have very strong and sharp claws which enable them to grip firmly onto tree branches. The marks are from koalas moving around the enclosure. On the front paw koalas have a double 'thumb' which also helps a firm grip. Koalas use their sharp claws for grooming and even have a special rounded digit on their hind paw to scratch their face to avoid scratching their eyes.

Gurrborra is a Bunurong name for koala. The word 'koala' is also an Aboriginal name meaning 'no drinking'.

While koalas occasionally do drink fresh water, where do they get most of their water needs from?

A: Koalas will sip fresh water in very hot and dry conditions. They get most of their water from the eucalyptus leaves they eat.



A problem for koalas is that sometimes they overeat from a favourite eucalyptus tree.

Look for something the conservation rangers provide for the koalas fresh every day. What is it?

A: Each day our conservation rangers provide fresh eucalyptus branches called 'browse' for the koalas to eat.



Find a koala and closely observe their fur.

- Why do koalas have such thick fur?
- A: Thick and coarse fur provides koalas with excellent insulation from the cold. It can also protect their skin from scratches from branches.

Can you see a koala wearing coloured ear tag?

Why do the koalas each have a different coloured tag on their ear?

A: Coloured ear tags are a way for rangers to identify individuals without getting too close to them. Each koala has a tag. You can ask at the ticketing desk for the names of the koalas based on their coloured tags.

Look closely at a koala's face.



Which senses do they rely on to survive?

Koalas need to find their food, detect predators and locate other koalas.

A: Koalas rely on excellent hearing and a strong sense of smell. Their vision is relatively poor.

Look closely at the features of a koala's face.

What are the structural adaptations (features) which give koalas these amazing senses? Can you describe these features?

A: Koalas have large ears and can detect other koalas from long distances. Both males and females have large noses, males have a flatter, broader nose than females. This gives koalas an acute sense of smell which helps detect other koalas and locate fresh eucalyptus.



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THE KOALA CONSERVATION RESERVE & THE KOALAS ON PHILLIP ISLAND

The Traditional Owners of Phillip Island (MillowI) are the Bunurong.

We recommend that teachers acknowledge Country, by paying their respect to Bunurong Elders past, present and emerging, at the start of all self-guided excursions on Phillip Island.

The Koala Conservation Reserve and koalas on Phillip Island have an interesting history and an evolving identity.

Koalas are not native to Phillip Island; they were introduced from mainland populations in the 1800's as orphans from logging and survivors from hunting for the fur trade. In the early 1900's millions of koala furs were exported to America. This changed after a massive public backlash in what is thought of as Australia's first large movement of citizens for a conservation issue.

By 1940, when the first bridge was built from the mainland to Phillip Island, there were too many koalas, up to 8000 living on the island, and trees being overbrowsed.

With a growing population of people on Phillip Island since then, coupled with the clearing of bushland for the building of houses and the construction of roads, as well as the impacts of roadkill and our pets, the koala population has steadily declined. From over 1, 000 individuals in the 1970's to an estimated handful of wild koalas in 2023. A population of approximately 3000 koalas remain on French Island. Which may be around 1000 too many for that island's forests to sustain.

The Koala Conservation Centre was once part of a sheep farm run by the Oswin family. Some of the family's land was presented to the Crown as a Koala Reserve in the 1950's. The Oswin family continued to be proactive for wildlife and saved many mature gum trees as well as revegetated areas with suitable eucalyptus trees for koalas, planting manna gums, swamp gums and blue gums. In 1992 the Koala Conservation Centre opened with the Nature Parks coming to manage the land and the Centre from 1996. The site included safe enclosures for koalas and a dedicated space for a feeder tree plantation. The Nature Parks has continued to work closely with the local community, council, land care groups, school students and volunteers to further revegetate the area.

While tourists from all over the world visit to experience koalas, the site has also become critical for the study and conservation of koalas and other threatened species.

In 2019, with funding from the WWF several critical care pens were constructed and a major study of the recovery of bushfire impacted koalas undertaken. Since 2019 many bushfire surviving kolas have been cared for and eventually re-released into the bushland where they were recovered from.

Today, in 2023, the Koala Conservation Reserve and the Oswin Roberts Reserve, is home to approximately 17 koalas with 3 semi-wild enclosed viewing areas. The koalas here have recently been involved in a study for the treatment of mange, a disease which effects the fur. They play an important role in the benefit of Victoria's mainland koala populations.

Koalas are protected by law in Australia under the Wildlife Act 1975.

For more information about koalas use our Nature Notes.



Phillip Island NATURE PARKS

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Bushland Escape KOALA CONSERVATION RESERVE