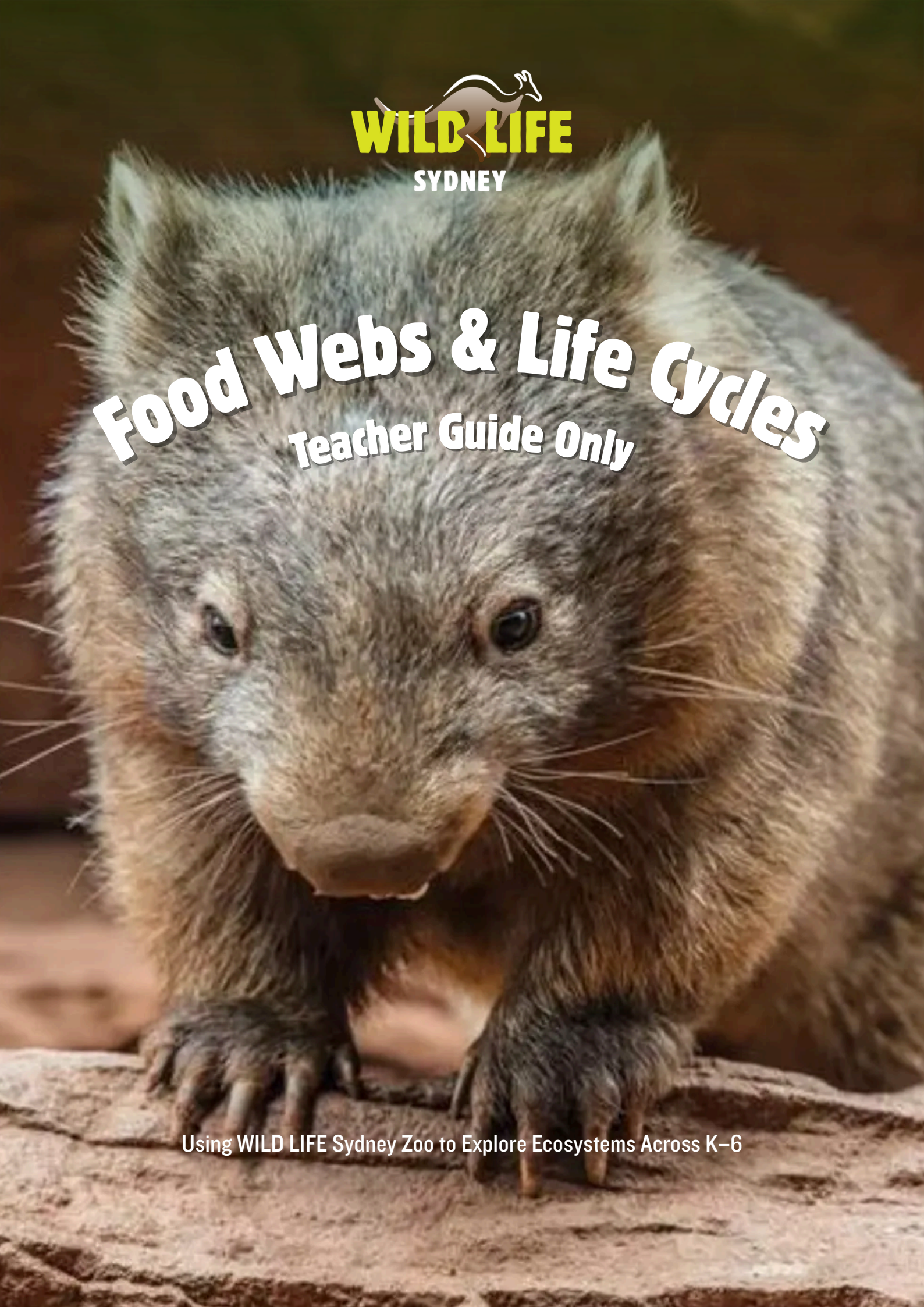

WILD LIFE
SYDNEY
Food Webs & Life Cycles
Teacher Guide Only
Using WILD LIFE Sydney Zoo to Explore Ecosystems Across K–6

HOW TO USE THIS GUIDE

This guide supports teachers to explore food webs and life cycles using real animal examples from WILD LIFE Sydney Zoo.

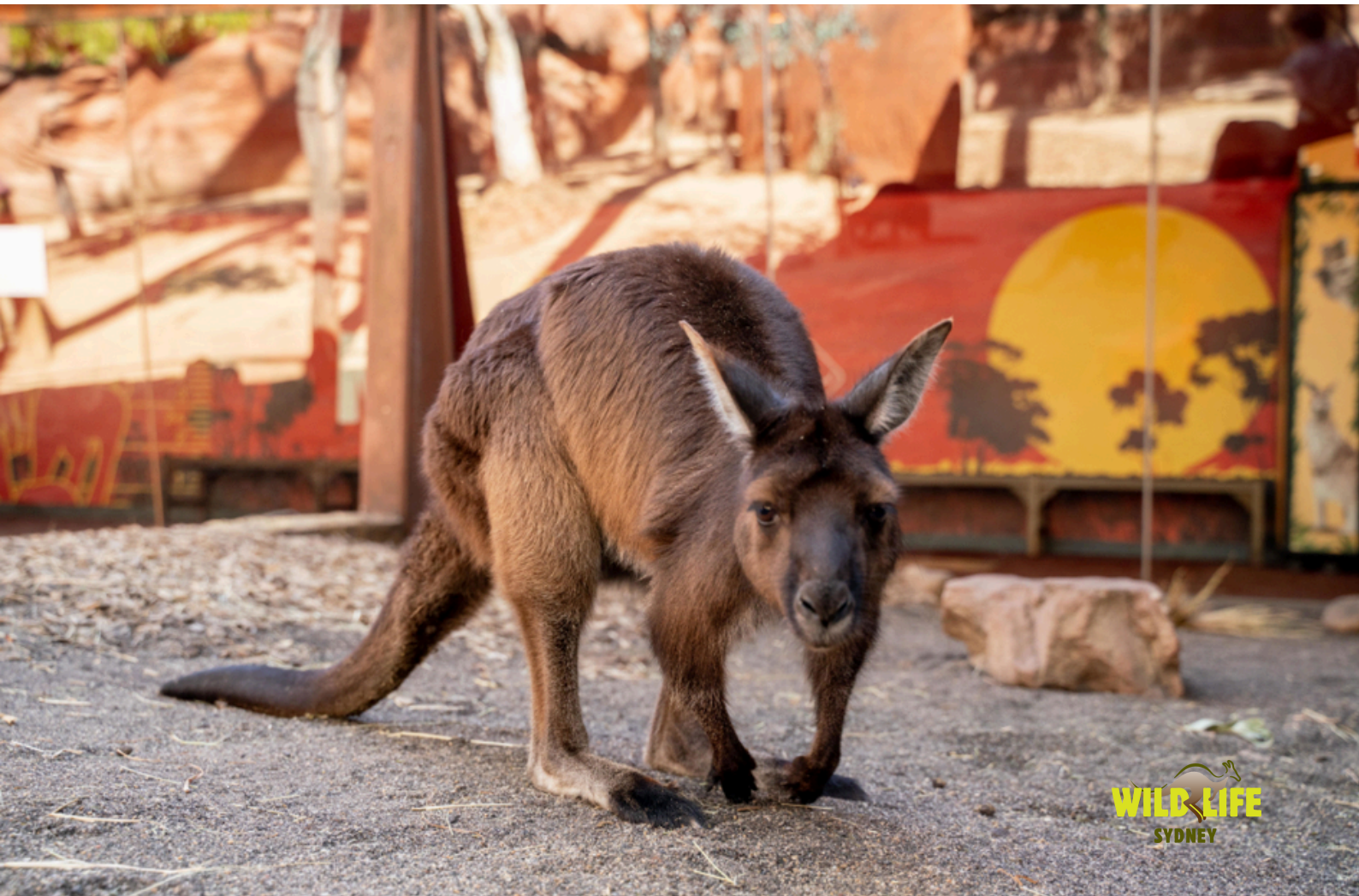
CLASSROOM LEARNING Pages 3-9

EXCURSION -BASED Pages 11-16

It includes:

- key ecosystem concepts
- animal roles within food webs
- life cycle examples
- stage-based vocabulary and questions

Teachers can adapt the content to suit Early Stage I through Stage 3.



LIVING THINGS & THEIR NEEDS

What Do Living Things Need?

All living things require food, water and suitable environmental conditions to survive.

They depend on other living things and their environment to meet these needs.

Zoo Examples

Koala → depends on eucalyptus leaves

Kangaroo → feeds on grasses

Crocodile → relies on other animals for food

Vocabulary Progression

ESI: food, water

Stage 1: needs, living

Stage 2: environment, survive

Stage 3: resources, limiting factors

Teacher Questions

ESI: What does this animal eat?

Stage 1: Where does it find its food?

Stage 2: What happens if food is limited?

Stage 3: Which resource is most limiting?

Teaching Focus

All organisms rely on resources from their environment.

WILDLIFE SYDNEY

FOOD CHAINS

What Is A Food Chain?

A food chain shows how energy moves from one living thing to another. Animals get energy by eating plants or other animals.

Zoo Examples

Grass → kangaroo → predator

Leaves → koala

Vocabulary Progression

ESI: eat, food

Stage I: food chain

Stage 2: energy, transfer

Stage 3: energy flow

Teacher Questions

ESI: What does this animal eat?

Stage I: What comes next in the chain?

Stage 2: How does energy move through the chain?

Stage 3: What happens if one part is removed?

Teaching Focus

Energy moves in one direction through a food chain.

WILDLIFE SYDNEY

FOOD WEBS

What is a food web?

A food web shows how many food chains are connected. This means one change can affect many organisms.

Most animals eat more than one type of food and are part of multiple chains.

Zoo Examples

Insects → multiple animals

Small animals → predators like crocodiles

Vocabulary Progression

ESI: food

Stage I: chain

Stage 2: web

Stage 3: interconnected

Teacher Questions

ESI: What does this animal eat?

Stage I: What else could it eat?

Stage 2: How are these animals connected?

Stage 3: Why are food webs more accurate than food chains?

Teaching Focus

Ecosystems are interconnected systems. Ecosystems are interconnected — changes in one part can affect the whole system.

Common Misconceptions

- Food chains are always simple and linear
- Animals only eat one type of food

WILDLIFE SYDNEY

ROLES IN ECOSYSTEMS

Roles of living things

Different organisms have different roles in ecosystems.

These include:

- producers (plants)
- consumers (animals)
- predators and prey

Zoo Examples

Plants → producers
Kangaroo → herbivore
Crocodile → predator

Vocabulary Progression

ESI: plant, animal
Stage 1: eater
Stage 2: producer, consumer
Stage 3: herbivore, carnivore, omnivore

Teacher Questions

ESI: Is this a plant or an animal?
Stage 1: What does it eat?
Stage 2: What role does it play?
Stage 3: How do roles affect survival?

Teaching Focus

Each organism plays a role in the ecosystem.

WILDLIFE SYDNEY

LIFE CYCLES

What is a life cycle?

A life cycle shows how a living thing grows and changes over time.
All animals go through stages of development.

Zoo Examples

Kangaroo → joey to adult
Frog (if referenced indirectly) → egg to adult
Insects → complete changes

Vocabulary Progression

ESI: grow, baby
Stage I: life cycle
Stage 2: stages
Stage 3: development, metamorphosis

Teacher Questions

ESI: What does a baby animal look like?
Stage I: How does it change?
Stage 2: What are the stages?
Stage 3: Why are life cycles important for survival?

Teaching Focus

Growth and change are essential for survival.

WILDLIFE SYDNEY

INTERDEPENDENCE

How living things depend on each other

Animals and plants rely on each other for survival.

If one part of a food web changes, it can affect many other organisms.

Zoo Examples

Plants → food source

Cassowary → seed dispersal

Predator-prey relationships

Vocabulary Progression

ESI: need

Stage I: depend

Stage 2: connected

Stage 3: interdependence

Teacher Questions

ESI: What does this animal need?

Stage I: What does it depend on?

Stage 2: How are these animals connected?

Stage 3: What happens if one species disappears?

Teaching Focus

Ecosystems rely on balance.

WILDLIFE SYDNEY

HUMAN IMPACT

Human Impact on Ecosystems

Humans can change food webs and life cycles. These changes can affect how animals survive.

Zoo Examples

Habitat loss affects food sources
Conservation programs support species survival

Vocabulary Progression

ESI: help, hurt
Stage I: change
Stage 2: impact
Stage 3: sustainability, conservation

Teacher Questions

ESI: How can we help animals?
Stage I: What do humans do to habitats?
Stage 2: How does this affect food webs?
Stage 3: How can ecosystems be protected?

Teaching Focus

Human actions influence ecosystem balance.

WILDLIFE SYDNEY

The zoo provides opportunities to observe animals and their roles in ecosystems.

Students can:

observe feeding behaviours

identify relationships between animals

explore how animals survive

Teaching Focus

Connect observation to food webs and life cycles.

WILDLIFE SYDNEY

ZONE: TRICKY TONGUES & TREETOPS

What Students Will See

Animals with specialised feeding behaviours.

- Goodfellow's Tree Kangaroo
- Echidna

Ecosystem Focus

Feeding strategies and ecological roles.

Key Teaching Points

Different animals eat different foods

Food determines habitat

Specialisation affects survival

Link to Concepts

Adaptations → feeding

Habitat → food availability

Life cycles → development and survival

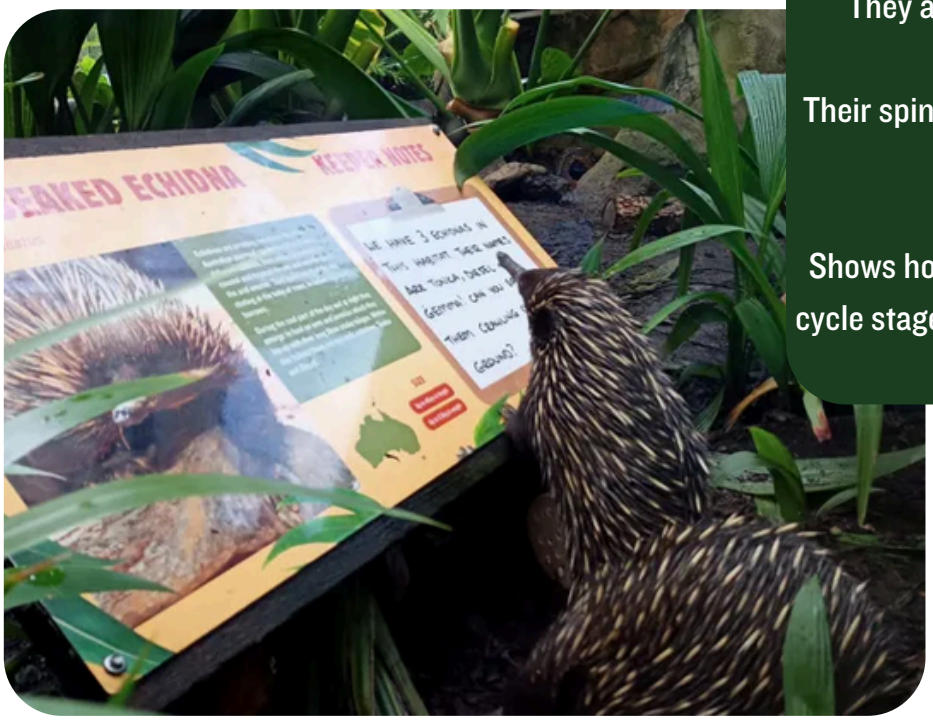
Teacher Prompts

ESI: What is the animal eating?

Stage I: How does it find food?

Stage 2: Why is this food important?

Stage 3: How does diet affect where animals live?



Focus Animal: Echidna

Role in Food Web

Insectivore

Life Cycle Notes

Egg → puggle → adult

Echidnas lay eggs and young develop in a pouch before becoming independent. These stages protect the animal during early development.

Key Facts for Teachers

Echidnas use long sticky tongues to eat ants and termites

They are one of the few egg-laying mammals

Their spines protect them from predators

Link to Learning

Shows how feeding adaptations and life cycle stages both contribute to survival in ecosystems

WILDLIFE SYDNEY

ZONE: DAINTREE RAINFOREST

What Students Will See

Dense vegetation and rainforest animals.

Ecosystem Focus

Interdependence and biodiversity.

Key Teaching Points

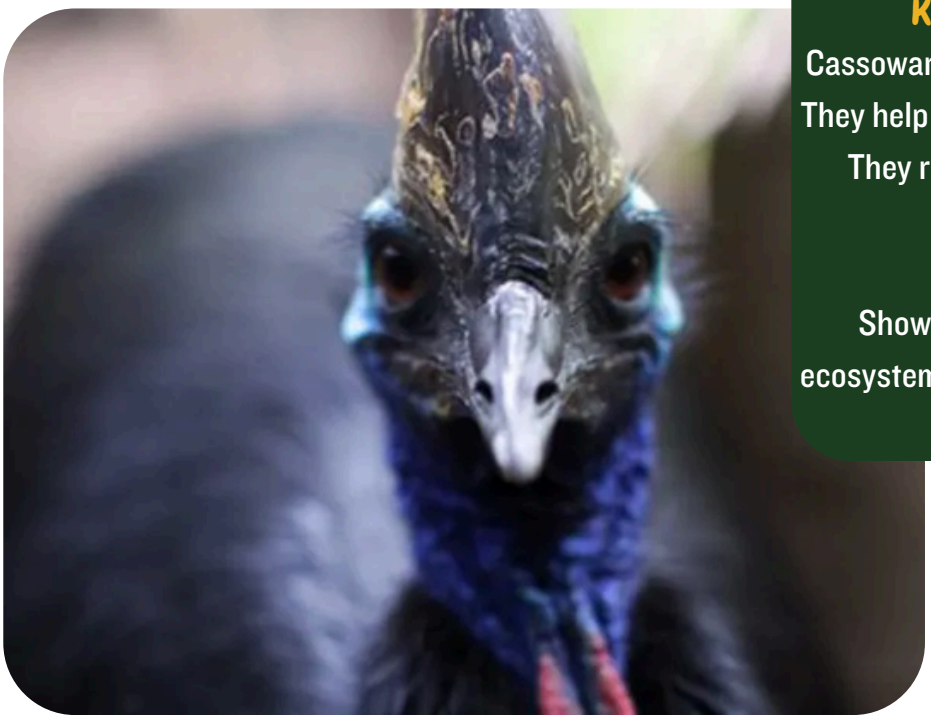
Many species live closely together
Animals depend on plants for food
Some animals support plant life

Link to Concepts

Food webs → interconnected systems
Interdependence → relationships
Life cycles → growth across ecosystems

Teacher Prompts

ESI: What can you see in this habitat?
Stage I: What do animals eat here?
Stage 2: How are animals connected?
Stage 3: Why are rainforests highly diverse?



Focus Animal: Cassowary

Role in Food Web

Consumer

Life Cycle & Survival Notes

Cassowaries grow from young to adult stages, gaining independence over time. Survival allows them to contribute to the ecosystem.

Key Facts for Teachers

Cassowaries eat fruit and disperse seeds
They help maintain rainforest ecosystems
They require large areas to survive

Link to Learning

Shows how life cycles connect to ecosystem roles and how animals support plant reproduction

WILDLIFE SYDNEY

ZONE: KANGAROO WALKABOUT

What Students Will See

Kangaroos grazing, moving and resting in an open habitat.

Ecosystem Focus

Energy transfer and herbivores in food chains.

Key Teaching Points

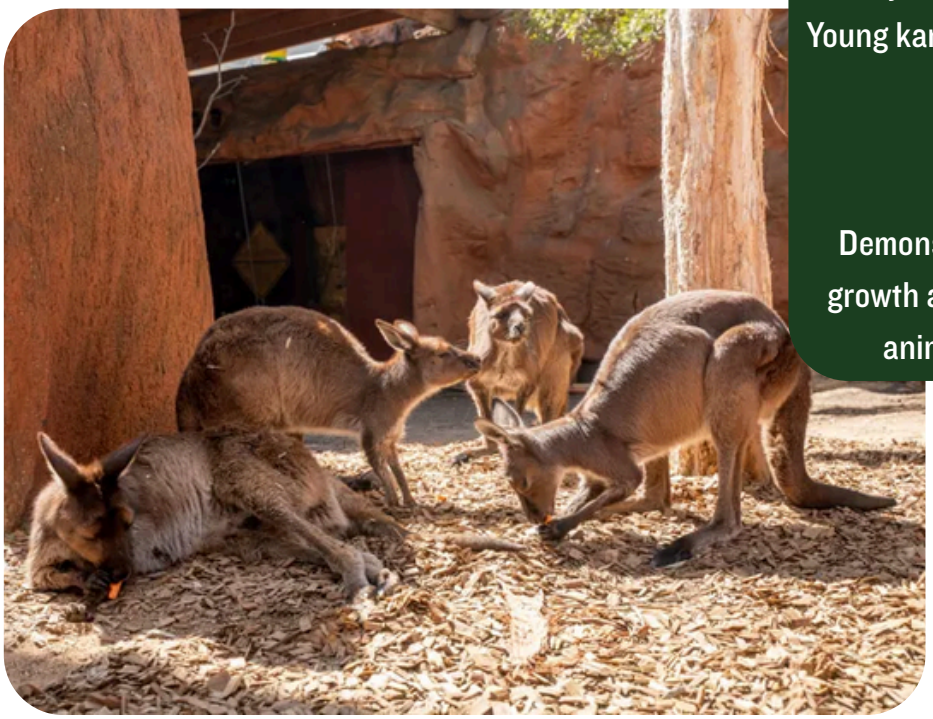
Energy moves from plants to animals
Herbivores depend on plant life
Movement supports access to food

Link to Concepts

Food chains → energy transfer
Life cycles → growth and development

Teacher Prompts

ESI: What is the kangaroo eating?
Stage I: Where does it get its food?
Stage 2: How does energy move through this food chain?
Stage 3: What happens if plants are removed from this habitat?



Focus Animal: Kangaroo

Role in Food Web

Herbivore (primary consumer)

Life Cycle & Survival Notes

Joeys develop in a pouch until they are strong enough to survive outside. This staged development increases survival rates.

Key Facts for Teachers

Kangaroos feed mainly on grasses
They move using powerful hind legs
Young kangaroos continue developing in the pouch after birth

Link to Learning

Demonstrates how energy supports growth and how life cycle stages help animals survive to adulthood

WILD LIFE SYDNEY

ZONE: NIGHTFALL

What Students Will See

Nocturnal animals active in low-light conditions.

- Sugar Gliders
- Bilbies

Ecosystem Focus

Behavioural adaptations and feeding.

Key Teaching Points

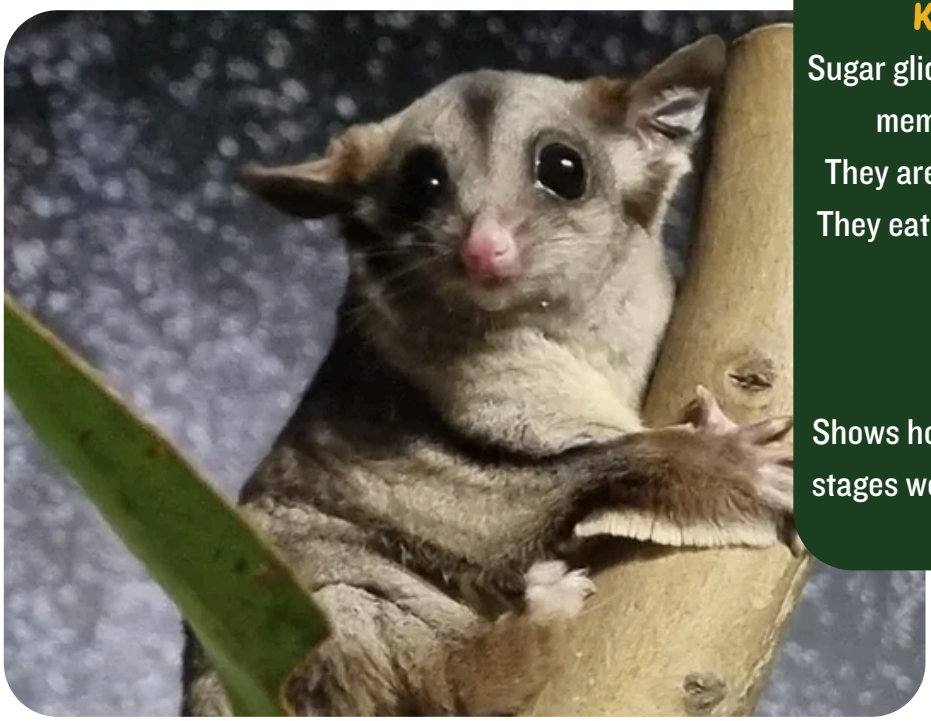
Some animals are active at night
Behaviour affects feeding patterns
Adaptations improve survival

Link to Concepts

Adaptations → behaviour
Food webs → feeding patterns
Life cycles → survival strategies

Teacher Prompts

ESI: Is the animal awake or asleep?
Stage I: When is it active?
Stage 2: Why is it active at night?
Stage 3: How does behaviour affect survival?



Focus Animal: Sugar Glider

Role in Food Web

Omnivore (eats insects, nectar and sap)

Life Cycle & Survival Notes

Sugar gliders give birth to a very undeveloped joey that continues to grow in the mother's pouch.
This protected stage helps the joey survive while it develops.

Key Facts for Teachers

Sugar gliders glide between trees using a membrane between their limbs
They are nocturnal and forage at night
They eat a varied diet including insects, nectar and plant sap

Link to Learning

Shows how behaviour, diet and life cycle stages work together to support survival in a food web

WILDLIFE SYDNEY

ZONE: KOALA ROOFTOP

What Students Will See

Koalas resting and feeding in eucalyptus trees.

Ecosystem Focus

Feeding relationships and specialised diets.

Key Teaching Points

Animals rely on specific food sources
Food availability affects survival
Specialisation can increase vulnerability

Link to Concepts

Food chains → herbivores
Habitat → food availability
Life cycles → growth and development

Teacher Prompts

ESI: What is the koala eating?
Stage I: Where does the koala find its food?
Stage 2: Why does it only eat certain leaves?
Stage 3: How does diet affect where animals can live?

Focus Animal: Koala

Role in Food Web

Herbivore (primary consumer)

Life Cycle & Survival Notes

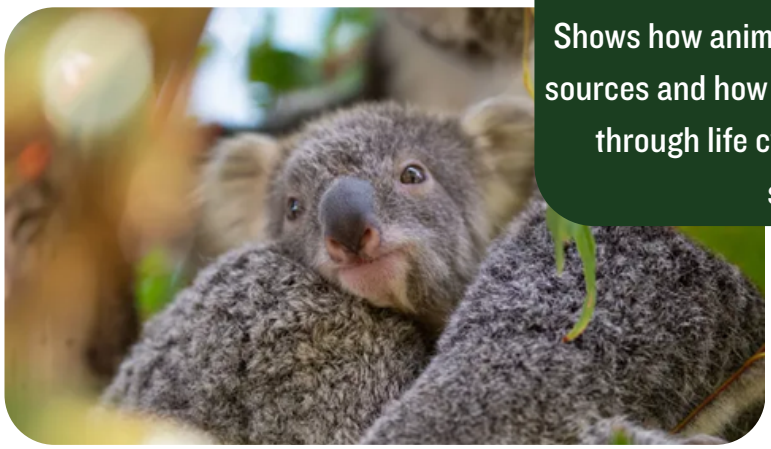
Joeys develop in a pouch where they are protected before becoming independent. This early stage is critical for survival.

Key Facts for Teachers

Koalas eat only specific species of eucalyptus leaves
Their low-energy diet results in long periods of rest
They rely on trees for both food and shelter

Link to Learning

Shows how animals rely on specific food sources and how successful development through life cycle stages supports survival



WILDLIFE SYDNEY

ZONE: CROCODILE BILLABONG

What Students Will See

A crocodile resting in or near the water.

Ecosystem Focus

Predator-prey relationships and food web balance.

Key Teaching Points

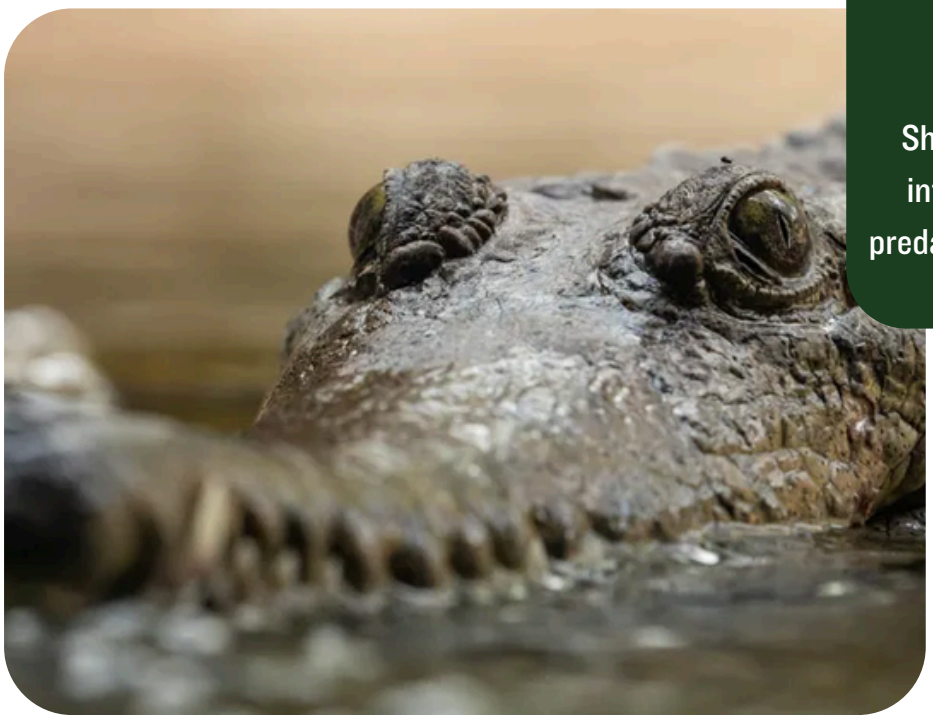
Predators rely on other animals for food
Apex predators play key roles in ecosystems
Balance is important for ecosystem stability

Link to Concepts

Food webs → predators
Interdependence → balance
Life cycles → survival rates

Teacher Prompts

ESI: What does the crocodile eat?
Stage I: Is it a predator or prey?
Stage 2: Why does it wait for its food?
Stage 3: How does this predator affect the ecosystem?



Focus Animal: Crocodile

Role in Food Web

Apex predator

Life Cycle & Survival Notes

Crocodiles hatch from eggs, but only a small number survive to adulthood. These survival rates affect ecosystem balance.

Key Facts for Teachers

Crocodiles are ambush predators
They regulate populations of other animals
They can survive long periods without food

Link to Learning

Shows how life cycle survival rates influence population size and how predators help maintain balance in food webs

WILDLIFE SYDNEY