

Leaf Litter

Exploring the Mysteries of a Hidden World

Written and Illustrated by Rachel Tonkin

ISBN: 0207198225

ARP: \$29.95 315x235mm 40pp

May 2006 Release

Teaching notes written by Christine Sarandis and Jeannette Stannard, and in collaboration with the author.

PLEASE NOTE

The paintings in *Leaf Litter* were inspired by the flora and fauna of the Box-Ironbark Forest in Victoria. Please see the web link at the bottom of the section entitled 'Web References' for more details, including distribution of the forest.



SYNOPSIS

In a time when respect for and understanding of our environment is paramount *Leaf Litter* is an excellent introduction to the intricate and complex relationships that exist in our natural world.



Leaves, twigs, branches and bark collect on the ground in forests all over the world. We call it leaf litter, but it isn't really rubbish at all. If you look closely at leaf litter you will discover a world of animals and plants living side by side; a busy secret world we hardly ever see.

In this exquisitely illustrated book, award-winning author/illustrator Rachel Tonkin has explored a small patch of leaf litter beneath one tree which contains a secret world that changes day by day.

The more you look the more amazing things you will find.

Ages 5+



ABOUT THE AUTHOR

Rachel Tonkin has illustrated over 50 children's books, including *Papa and the Olden Days* (an Honour book in the 1990 CBC Awards) and *Lucy and the Whale* (shortlisted for the Wilderness Society Environment Award for Children's Literature). She has also written and illustrated several titles including *What Was the War Like, Grandma?* and *Grandpa's Stories* (both shortlisted for the CBC's Eve Pownall Information Award), *When I was a Kid* (shortlisted for a NSW

Premier's Award) and, most recently, *To the Goldfields!* Her work is also featured on the Heritage Trail at the Dromkeen Collection Art Gallery.

Rachel lives with her husband in Castlemaine, in rural Victoria.

THEMES

Ecology
Natural systems
Recycling
Lifecycles
Conservation
Seasons
Vertebrates and invertebrates
Cold-blooded and warm-blooded animals
Biodiversity (the variety of life)
Plant and animals identification
Native Australian plants and animals
The Australian bush
Fungi
Habitats
Social insects
Soils



Environmental Education

Environmental education is a life-long process of learning that helps people to understand and appreciate the environment and their connection to it. An understanding of our natural, cultural and social heritage is essential for the development of environmentally informed citizens who are prepared to become involved in their community.

The long-term aim of environmental education is the development of an environmental ethic that is reflected in individual and collective environmental practices. This is critical for promoting ecologically sustainable development, for improving the capacity of people to address environmental issues, now and in the future, and for effective public participation in decision-making about the environment and issues that affect these environments. Integrated environmental education programs provide a meaningful context for that participation.

Source: <http://www.sofweb.vic.edu.au/sose/ee/index.htm>
<http://www.sofweb.vic.edu.au/sose/docs/SOSETSMLevel1-4.doc>

INITIAL QUESTIONS AND POINTS FOR DISCUSSION

- Invite children to discuss the cover of the book, the title, subtitle and the possible content within.
- Discuss the fact that everything in the story takes place beneath a single tree.

- Quiz children on their understanding of the term “leaf litter”.
- All the changes that occur throughout the book are the combined result of seasonal changes and the evolution of plants and animals. Discuss.
- The lifecycle of a butterfly is well known to many people. Choose one plant or animal from the book and follow its lifecycle, showing how it impacts on its environment (E.g. the lifecycle of a maggot or a fungus)
- Why might we miss the small details in the world around us?
- How are the changes in the environment affected by humans?



QUESTIONS TO FOLLOW SHARED READING

These questions may be used randomly for an oral class discussion or children might like to work in pairs to find and write down their answers.

- What do you feel is the main message in the book?
- Where does the term “leaf litter” originate?
- Is “leaf litter” rubbish?
- How long can a scorpion wait between meals?
- Why do many seeds die before they can grow into plants or trees?
- It is common for many insects to die after they have _ _ _.
- How does rain water become rich with nutrients?
- What part do termites play in helping to reduce the leaf litter?
- The only bird able to crack a hakea seed pod is a _ _ _.
- Which creature brought to Australia by ship threatens the existence of the native mouse?
- How does the tuan carry her babies?
- Baby mice are born blind. How many days does it take for a mouse to reach its full size?
- Owls eat mice. Name one other creature that they eat?
- How do ants and caterpillars coexist on the sweet bursaria bush?
- Which animals were responsible for smashing a log and demolishing the termite mound as well?
- Why did some termites that escaped from their smashed nest later die?
- What takes the place of a cocoon for some



caterpillars?

- In which season do some insects split their pupal cases and nymph skins, to then become butterflies, moths or other insects?
- Find out how some insects escape being eaten?
- Describe how a dung beetle uses the dung found in leaf litter?
- Which is the noisiest time of the year in the leaf litter and why?
- How does leaf litter prevent soil erosion?

ECOLOGY ACTIVITIES

Many of the following questions and activities will require research using the Internet or reference books.



- Explain why leaf litter is good for the environment and why human litter is often an environmental problem?
- Contrast leaf litter with litter created by humans. What can humans learn from nature about what to do with litter?
- Choose an animal from *Leaf Litter*. Write a story in the first person about a day, a week or a year in life of this animal.
- Research the function of leaves. Use *Leaf Litter* to describe the stages in a leaf's life.
- Research the function of roots and explain their importance to the forest.
- Describe the components of healthy soil and explain how soil is formed in the forest.
- Look up the definition of “decomposer” in a science or ecology book. List some of the decomposers in the *Leaf Litter* book and explain what might happen in the forest if they were not there.
- Suggest what would happen to the leaf litter if a bushfire entered the forest.
- Contrast the animals, plants and soil found in the leaf litter with the animals and plants that might be found in a park lawn. Explain the main differences.
- Describe and draw the lifecycle of one of the following: a forest fungus, a blowfly, a frog, a cicada.
- Describe and illustrate the difference between insects and spiders.
- Choose a plant or animal in *Leaf Litter*. Summarize the structure, behaviour and lifecycle of your chosen plant/animal.
- Lizards and snakes are cold-blooded and echidnas and owls are warm-blooded. Give other examples. Explain the difference between warm-blooded and cold-blooded animals.





- Explain the difference between vertebrates and invertebrates. From *Leaf Litter*, give six examples of each. Choose one of the vertebrates and one of the invertebrates that you have listed and research their structure and way of life (e.g. what they eat, who eats them, where

they live, and how they breed).

- Choose three birds from *Leaf Litter* and describe the differences in their appearance. Explain how each bird is adapted to suit their particular diet.
- Choose an Australian snake species and describe its way of life in your own words. Explain what you should do if you come across a snake.
- The Eltham Copper butterfly is endangered. Explain what endangered means and write an article about another endangered Australian plant or animal.
- Take children on an excursion to an area of local bush land and instruct them to make field notes about the natural environment using their senses of sight, sound, touch and smell. Children could then be taken to a built up area (even the school) and using the same senses, make field notes to describe the modified environment. Contrast and compare back in the classroom.

ART ACTIVITIES

- Take a drawing pad outside and choose a small area of garden, the creek or the park to draw. Make a list of all the things you see and then sketch with pencil or charcoal. Once inside, use watercolour, pastel or acrylic paint to complete your work, paying careful attention to replicating the colours you have seen. This activity can also be done using a photograph as a reference. Remember to use the whole page, leaving no blank spaces, paying careful attention to the background and foreground.
- Make a collage on a thick piece of cardboard using cut and torn paper and other recyclable materials to create your impression of the leaf litter beneath the tree in the book; you might want to experiment with trying to create a number of layers by laying things on the page a couple of times before gluing them down (remember not to use found objects such as leaves and twigs as removing them from the environment will change the ecology of the area)
- Rachel Tonkin paints what she sees. What artistic terms are used to describe this kind of artwork? Discuss other painting styles such as abstract and naive.
- Look at the paintings of the artists of the Heidelberg school and discuss their reasons for painting realistic landscapes.
- Using thin paper and crayons make rubbings of various items from the natural world.



- Look closely at a spider's web and discuss how it is formed, its function and its fragility. First paint a background on a large sheet of paper and then paint a web using a fine brush or use wool to lay out the design. Then add a spider and some of its prey caught in the web.
- Use clay to make a model of one of the creatures from the book.
- Make a Papier-Mache animal using boxes or chicken wire for the model. You may need masking tape to join different body parts. Apply glue-soaked paper strips in layers and then paint when dry. Use photographs or pictures of your chosen creature to replicate the colour and feature detail.
- Raised cardboard prints. Using plain cardboard, cut shapes to make a nature picture; Draw the shapes you want first and then cut out and stick onto another piece of cardboard using white glue. Build detail on the picture by cutting eyes, scales, claws and other textures to build layers. When everything is glued down, leave to dry thoroughly for at least 48 hours. Once dry, squeeze printing ink onto a plastic tray and use a roller to cover the cardboard picture with a thin coat of ink. Place a black piece of paper on top of the raised cardboard and roll carefully until the ink has been evenly distributed. Peel off the black paper and hang your print to dry. (This activity can also be done using a simple line drawing with white glue applied to the lines to create the picture. Once dry, print as above.)
- Using pen and ink, charcoal or pencil, children might like to illustrate a termite nest.



- **P** **A** Plant and **A** animal letters. Children choose a letter of the alphabet and list as many Australian organisms from the environment that begin with that letter; draw the letter as above and then draw all the creatures from their list inside the letter. Finally, complete with coloured pencils.

PROJECT IDEAS

- Under each season heading, make a list of all the things that occur during that season within an Australian setting. Children share these ideas with their friends – compare and contrast the things that stay the same and the things that change each season.
- Using any medium they like, children create a project (a piece of artwork, a poem, a small booklet, an advertisement) with the theme lifecycle.

LIFT-THE-FLAPS

- Discuss the purpose and value of using flaps in the book.
- What might the flaps in the book represent in nature?

- Lift the flaps and what do you see? What other secret worlds can you imagine beneath your feet? (E.g. the secret world at the bottom of a pond or the seabed).
- Play a guessing game – what's under this flap?
- Discuss the importance of camouflage in the natural world and the many ways in which creatures might hide from their prey?



THINGS TO FIND - SUGGESTED USES

- Children could work in pairs to search for all the listed organisms on a double page spread. Afterwards they might like to share their findings with another pair of children.
- Children could choose a double page spread and draw each of the ten things to find.

LIFECYCLES

The following list of animals and plants provides a detailed outline of each organism's characteristics, habitat and lifecycle. Teachers may choose to use the information in a number of different ways; it could be used as the basis for further research and children could then present a project in the form of an oral presentation, a written report, an illustrated report or an artistic interpretation.

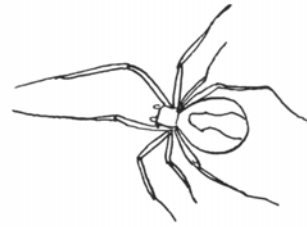


Mice

- born pink, without fur
- cannot open their eye
- drink mother's milk
- Barr in nest of shredded leaves and grass in burrow
- fully grown at 7 weeks - can have own babies
- eat seeds, nuts, leaves, roots, yams/tubers, fungi, insects
- prolific breeders producing. up to 9 litters per year
- mostly nocturnal
- hide by day in the burrows they dig
- mice are food for owls, birds of prey, cats, foxes, dogs
- hydrate and aerate soil
- abandoned burrows provide homes for many insects, earwigs, slaters, lizards etc.

Cicadas

- female lays eggs on bark of tree
- eggs hatch into nymphs, drop to the ground burrow into soil where they suck sap from tree roots
- shed nymphal skins as they grow
- summertime, climb out onto tree trunk to shed final skin and emerge as winged adult
- hide in trees camouflaged by bark and leaves
- males sing by vibrating drum like organ at base of abdomen - to attract females adults
- food for birds
- help aerate soil

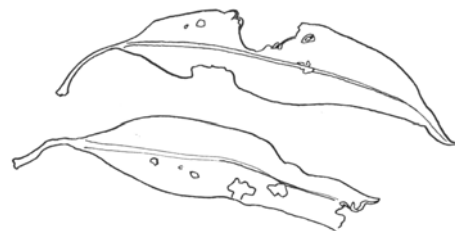


Earwigs

- mother lays eggs in nest site, guards eggs and then guards newly hatched nymphs
- nymphs hide under mother's body when threatened
- young usually stay with mother until second moult
- young nymphs eat own moulted skins
- mother will eat children if they stay around too long
- eat decaying plants, small insects, insect larvae, dead insects
- habitat beneath litter, stones and logs
- large compound eyes, biting mouths
- rear pincers used for carrying food to nest site, and used in defense
- food for tachinid flies (parasitic), spiders, birds, bats
- reduce litter mass, clean up decaying matter

Spider Hunting Wasps

- female digs burrow, often with more than one compartment
- hunts spiders, paralyzes spider and drags it backwards to burrow
- wasp uses landmarks to guide herself back to burrow
- pushes spider into compartment, lays one egg on each spider, seals nest with pebbles
- female takes no further interest in young
- when eggs hatch, each larvae feeds off a live spider
- when large enough to pupate, spins cocoon in burrow in which it pupates
- adult wasp eats nectar and sap
- aerates soil
- burrow takes rain down into earth so doesn't just dampen surface or run off
- keeps spiders in check



Eltham Copper Butterfly (endangered)

- eggs laid in small groups - up to 10 on

- leaves, stem, or trunk of bursaria bushes or on leaf litter close to the plant
- notoncus ants find eggs but don't touch them
- eggs hatch between 7-10 days, tiny caterpillars go into nest
- caterpillars live underground in ant's nest at base of bursaria bush
- they secrete sugary solution which ants eat from caterpillars' back
- on warm nights, larvae, attended by ants, climb up from ants' nest to eat bursaria leaves
- ants defend caterpillars from attack
- larvae pupate in ants' nest attached to stem or roots between 24 - 30 days
- adults hatch between November and mid February
- adults feed on nectar from flowers of bursaria, sometimes other plants
- males territorial, chases other adults and other butterflies from chosen bush
- caterpillars give ants food
- ants keep caterpillars clean, preventing fungal infections which could kill caterpillars



Blow Flies

- female usually lays 100's of eggs on dead or decaying flesh (and open wounds)
- larvae feed on rotting flesh, dung etc
- wriggle away to pupate in hardened pupal case hidden underground or in leaf litter
- inflate top of head to split case
- climb out
- wings expand and harden now as adults
- adult blow flies feed on dung of many creatures including spiders and insects
 - food for birds, spiders, lizards etc
 - clean up rotting flesh and dung



Scorpions - Black Rock Scorpion

- live in burrows
- female gives birth to live young, generally during February, March
- mothers catch babies as they are born.
- babies ride on mum's back until at least their first moult
- young scorpions moult an average of six times before they become adults
- adults don't moult
- some species of scorpions live 2-10 years, maybe even 25 years



- nocturnal and more active in warmer weather
- eat beetles, crickets, ants, cockroaches, millipedes, centipedes, spiders, other scorpions
- sit and wait close to burrow - when prey wanders by, grab prey in claws, may not use sting at all
- get most of water they need from their prey
- food for reptiles, birds, mammals, scorpions, spiders

Spider, Brown House Spider

- after mating, female spins special egg sac from silk into which she lays her eggs
- guards egg sac until eggs hatch
- within short time tiny hatchlings escape into litter
- as hatchlings grow they moult a number of times until they are fully grown
- adult builds a tangled web of sticky threads close to the ground in dark hidden places, especially in leaf litter



- hides beneath leaves without moving
- insects caught in her web are injected with venom
- bound tightly and dragged close to spider's seat beneath litter then injected with fluid to dissolve their insides into a sort of soup which the spider can then suck up
- spiders hunt only live prey
- eats insects, slaters, earwigs keep insects in check

Bibron Toadlet

- shelters under leaf litter and logs
- breed in autumn
- lays eggs in nest made in damp leaf litter or in burrows under rocks and logs
- tadpoles hatch after heavy rain
- slither down trickles of rainwater into puddles in grasslands or depressions in the ground
- fully grown late spring (if water dries up too quickly they die)
- tadpoles graze on algae and microscopic plants
- adult frogs eat moving live prey - tiny, tiny insects, ants
- eaten by owls, water birds, foxes



Scented Sundew

- flowers July to October
- hairs on leaves exude sticky substance which attracts insects
- hairs curl around insects, trap them and digest them - this gives the plant extra nitrogen
- after seeds have matured, flower stems turn downwards and push seeds into the ground beside the parent plant

- can eventually create large patches of plants

Spreading Wattle

- flowers May to October
- seeds germinate after fire or scratching has weakened the outer skin
- first two seed leaves open followed by infant leaves - feathery bi-pinnate leaves (leaves which are twice divided)
- finally adult spikes develop that are not leaves at all but modified leaf stalks
- (there are 2 spreading wattle plants in the book, one starts from seed, the other is already mature)
- flowers do not have petals; they are balls of pollen bearing anthers
- seeds form in pods
- when pods turn from green to brown the seeds are mature
- in the summer heat, the pods burst open with a loud crack - this flings seeds away from the parent plant
- seeds eaten by birds and collected by ants who use aril (fatty appendage on seeds) to feed young
- seeds then discarded either inside nest or on rubbish dump where they germinate



Magenta Stork's Bill

- flowers October to April
- seeds spring away from the seed pod when ripe
- seeds have long tail with filaments along one side
- filaments catch the wind which carries the seed away from the parent plant
- the tail winds into a spiral like a corkscrew
- upon landing, the tail twists the seed into the ground
- the plant's underground tubers multiply in favourable conditions, forming a large clump

Yam Daisy

- flowers July to November
- historically, staple food of Aborigines
- seeds have umbrella filaments to catch the wind and carry the seeds away
- last years tubers shoot in summer
- stored up food in tubers feeds new leaves
- old tubers eventually wither as next year's tubers grow to maturity
- after flowering and setting seed, the leaves die and the plant becomes dormant



Toadstool

- spores grow into microscopic filamentous cells which grow together with other cells to form the mycelia, the fine threads (usually not seen)
- the mycelia penetrate bark, twigs and fallen branches
- the wood disintegrates, then what remains becomes food for microorganisms and provides nutrients for plants and trees
- fruiting bodies (toadstools, mushrooms, puffballs etc) grow up from the mycelia
- when the toadstool is in the open air, the cap opens showing the gills
- the gills (like spokes on a wheel) release powder-like spores which blow away on the wind

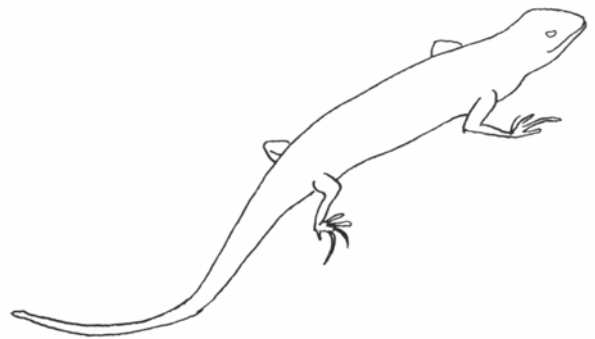
Horse Dropping Fungi



- puffball
- often grows on roadsides or rocky ground
- when mature the skin flakes away and exposes the spores
- the fungus gradually wears away as its powder-like spores are blown away by the wind or washed away by the rain
- cracks, breaks up and loosens hard ground so other spores and seeds can gain entry

Skink

- 2-6 eggs laid December to January in cracks in ground or buried, sometimes in communal nests
- young hatch February to April
- eat ants, moths, spiders, young lizards, flies
- cold-blooded so come out in the early morning to warm their bodies in sun
- don't sunbake when hot in case they overheat
- skinks hibernate when weather too cold and body can't get warm enough to allow them to catch prey and feed
- shed tails to escape capture - dropped tails wriggle
- food for birds, cats, bigger lizards, scorpions



GAMES AND OTHER FUN ACTIVITIES

LEAF LITTER – WORD FIND

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

BARK
BRANCHES
COCOON
FEATHERS
FLOWERS
FUNGUS
GERMINATE
TREES
TUBER
TWIGS

HAKEA
HONEYDEW
LEAVES
LICHEN
NEST
POLLEN
PROBOSCIS

RAINWATER
ROOTS
SEEDS
SOIL
SPORES
SWEET BURSARIA
TOADSTOOLS



LEAF LITTER – WORD FIND

Solution

```

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

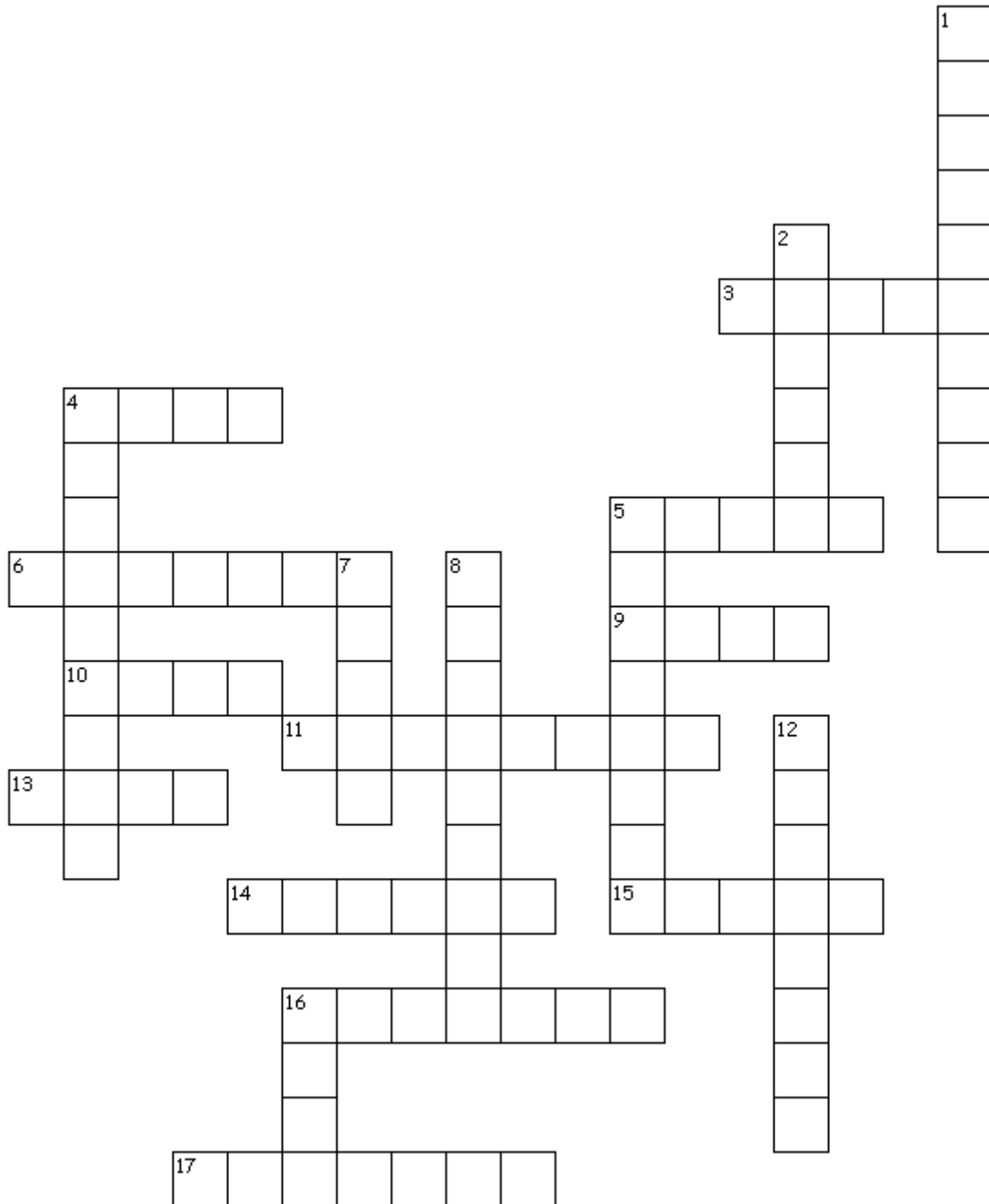
```

Over,Down,Direction
 BARK(12,1,SW)
 BRANCHES(14,12,SW)
 COCOON(10,10,W)
 FEATHERS(9,11,W)
 FLOWERS(16,13,N)
 FUNGUS(9,20,E)
 GERMINATE(4,1,SE)
 HAKEA(5,12,SE)

HONEYDEW(12,8,NW)
 LEAVES(1,19,NE)
 LICHEN(14,14,S)
 NEST(5,18,NW)
 POLLEN(20,10,SW)
 PROBOSCIS(13,2,S)
 RAINWATER(5,13,E)
 ROOTS(16,15,E)
 SEEDS(1,14,N)

SOIL(17,5,W)
 SPORES(14,1,SE)
 SWEETBURSARIA(4,14,N)
 TOADSTOOLS(9,18,NE)
 TREES(10,15,NE)
 TUBER(15,7,S)
 TWIGS(19,5,NW)

LEAF LITTER CROSSWORD



Crossword Clues

Across

3. A winged male or female termite, ant or other insect that flies from the nest to mate and start a new colony.
4. A creature that is hunted and eaten by another creature.
5. The tiny reproductive cell of a fungus, moss or fern.
6. The tail area of insects and spiders.
9. The larva of some insects, including beetles.
10. A creature related to the snail, but with a simpler shell, or none at all.
11. A grub that spits out eucalyptus-smelling oil to defend itself against enemies.



13. A plate underneath the cap of a mushroom or similar fungus that holds spores.
14. A fly larva.
15. A swollen root or stem in many plants, usually underground that is used for food storage.
16. A pale, soft-bodied insect that feeds on cellulose.
17. A pair of claws on the heads and front legs of creatures such as centipedes, millipedes and earwigs.

Down

1. A dark-coloured warty frog that gets its name from the noise it makes when it croaks.
2. A tiny crustacean that lives in soil, also called a woodlouse.
4. The long, tube-like 'mouth' of some insects and worms.
5. The most common type of ant in the world.
7. The larva of an insect that doesn't pupate.
8. A worm that eats soil and everything in it.
12. A sticky, sugary liquid produced by some insects as they feed on plants and suck their sap.
16. A grey-coloured marsupial about the size of a rat, with a black, bottlebrush- shaped tail.



Crossword Solution

Across

3. **ALATE** A winged male or female termite, ant or other insect that flies from the nest to mate and start a new colony.
4. **PREY** A creature that is hunted and eaten by another creature.
5. **SPORE** The tiny reproductive cell of a fungus, moss or fern.
6. **ABDOMEN** The tail area of insects and spiders.
9. **GRUB** The larva of some insects, including beetles.
10. **SLUG** A creature related to the snail, but with a simpler shell, or none at all.
11. **SPITFIRE** A grub that spits out eucalyptus-smelling oil to defend itself against enemies.
13. **GILL** A plate underneath the cap of a mushroom or similar fungus that holds spores.
14. **MAGGOT** A fly larva.
15. **TUBER** A swollen root or stem in many plants, usually underground that is used for food storage.
16. **TERMITE** A pale, soft-bodied insect that feeds on cellulose.
17. **PINCERS** A pair of claws on the heads and front legs of creatures such as centipedes, millipedes and earwigs.

Down

1. **POBBLEBONK** A dark-coloured warty frog that gets its name from the noise it makes when it croaks.
2. **SLATER** A tiny crustacean that lives in soil, also called a woodlouse.
4. **PROBOSCIS** The long, tube-like 'mouth' of some insects and worms.
5. **SUGAR ANT** The most common type of ant in the world.
7. **NYMPH** The larva of an insect that doesn't pupate.
8. **EARTHWORM** A worm that eats soil and everything in it.
12. **HONEYDEW** A sticky, sugary liquid produced by some insects as they feed on plants and suck their sap.
16. **TUAN** A grey-coloured marsupial about the size of a rat, with a black, bottlebrush-shaped tail.

WHAT AM I?

- I plant my own seeds.
- My seeds twist into the ground like corkscrews.
- My spores puff out when someone stands on me.
- I look like a spider but I'm really a plant.
- I look like a brown leaf but can jump.
- I look like a stick but I can catch flies.
- I have eight eyes.
- I am pink, blind and drink my mother's milk.
- I am made by tiny insects from chewed up wood and saliva.
- I am a lump on a leaf and inside me lives an insect.
- I can go without eating for up to a year.



WHAT AM I? - ANSWERS

- Sundew
- Pelargonium
- Puffball fungus
- Spider orchid
- Ridgeback grasshopper
- Stick insect
- Spider
- Baby mouse
- Termite mound
- Leaf gall
- Scorpion



WHAT EATS?

- hunting spiders
- mice
- dead lizards
- maggots
- dead wood
- termites
- seeds
- dead moths
- flies
- cicadas



WHAT EATS? – ANSWERS

- skinks, birds
- snakes, owls
- maggots
- birds, ants, lizards

- termites
- choughs, bearded dragons, ants
- ants, birds
- ants
- spiders, skinks, praying mantis
- birds

WRITE THE CORRECT NAME BENEATH EACH PICTURE

(See pages 21 and 22 of these Teachers' Notes for the stencil and answers.)

- scorpion
- millipede
- centipede
- earwig
- slater
- grasshopper
- slug
- beetle
- cicada nymph
- praying mantis

BABIES

(See pages 23 and 24 of these Teachers' Notes for the stencil and answers.)

Many creatures that live in the leaf litter have babies that don't look anything like their parents. See if you can work out which baby belongs to which adult?

- Draw a line to connect them.

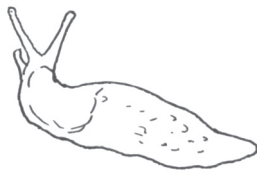
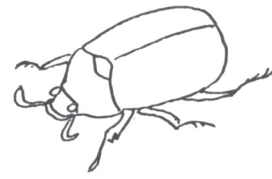
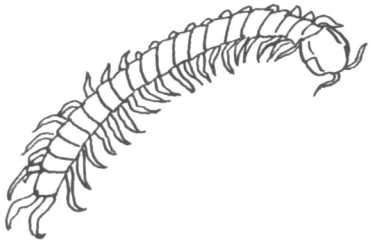
FURTHER READING

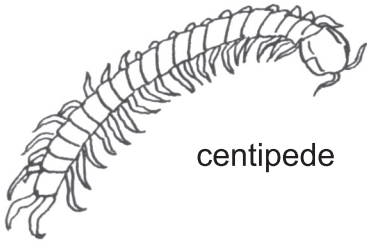
- ❖ *Seasons*, John Burningham
- ❖ Books by Jeannie Baker including *Belonging* and *Where the Forest Meets the Sea*
- ❖ *The Extinction Series* by Gary Crew. Illustrator Mark Wilson
- ❖ Books by Tricia Oktober including *Bush Secrets*, *Wetlands*, *Rainforest*, *Reef*, *Bushfire*, *Drought*
- ❖ *Walking With the Seasons in Kakadu* Diane Lucas. ill. Ken Searle
- ❖ *Sister Chick* by Meme McDonald
- ❖ *Diary of a Wombat* by Jackie French
- ❖ *Growing Frogs* by Vivian French
- ❖ *What's for Lunch?* by David Miller
- ❖ *Jeemuluk, the Young Noisy Scrub Bird* by Corinn Wallace Hine
- ❖ *Pobblebonk the Frog* by Pauline Reilly
- ❖ *How do I Know it's an Ant? A book about animals* by Eleanor Stodart
- ❖ *Spotlight on Spiders* by Densey Clyne
- ❖ *The Australian Animal Atlas* by Leonard Cronin
- ❖ *Backyard Insects* by Paul A. Horne

- ❖ *Australian Frogs: Amazing Amphibians* by Jill Morris
- ❖ *Discover and Learn about Australian Forests and Woodlands* by Pat Slater

WEB REFERENCES FOR CHILDREN AND TEACHERS

- ❖ <http://www.ceres.org.au/index1024x768.htm>
- ❖ <http://www.gould.edu.au/>
- ❖ http://www.gould.edu.au/kids_zone/kids_zone.asp
- ❖ <http://sustainability.ceres.org.au/>
- ❖ <http://www.wilderness.org.au/>
- ❖ <http://www.birdsinbackyards.net/>
- ❖ <http://www.amonline.net.au/>
- ❖ <http://www.amonline.net.au/explore/index.cfm>
- ❖ <http://www.deh.gov.au/education/index.html>
- ❖ <http://frogs.org.au/>
- ❖ <http://www.abc.net.au/learn/schools/default.htm>
- ❖ <http://www.floraforfauna.com.au/>
- ❖ <http://www.cultureandrecreation.gov.au/articles/flora/index.htm>
- ❖ <http://www.dse.vic.gov.au/dse/nrence.nsf/LinkView/9311F38D55506B2CCA256C0600805E31A1D235A061D8FC414A256DE90080D13C>
- ❖ [http://www.dse.vic.gov.au/CA256F310024B628/0/CD39AC78D13C41E2CA257061000FDEA3/\\$File/Native_veg_+gp_+map_04.pdf](http://www.dse.vic.gov.au/CA256F310024B628/0/CD39AC78D13C41E2CA257061000FDEA3/$File/Native_veg_+gp_+map_04.pdf)

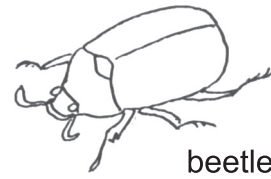




centipede



scorpion



beetle



grasshopper



earwig



millipede



slater



slug



cicada nymph



praying mantis

