Wildlife Detectives

Your planting site provides habitat for a range of wildlife –smaller creatures like insects, lizards and frogs, or maybe larger animals like birds and mammals. Use your detective skills to look for signs of wildlife.

What you will need

Field guide or wildlife identification app

Binoculars

Magnifying glass

What to do

1. Before you begin, discuss which animals you think might live at your planting site or local park. Wildlife can be found on plants, in trees, under rocks or in holes in the soil. Which ones do you think you will see? Which ones are you unlikely to see?

2. Make sure to talk about site safety before you set off.

3. Explore your planting site or local park and see which animals live there. Once you arrive, sit or stand quietly for a few minutes and watch for any signs of wildlife. Some animals you may not see, but you will hear (for example, frog and bird calls).

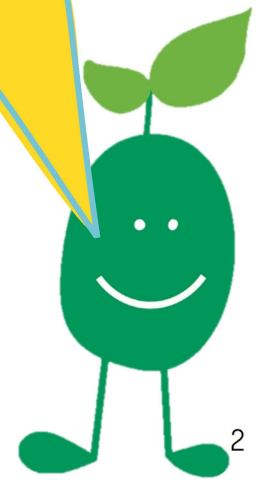
4. Take a walk around and look carefully for wildlife. Some good places to look are:

- around logs and under rocks
- leaf litter
- bark or leaves of trees
- prickly bushes
- near flowers
- branches of the trees and the sky!

5. Use your field guide or wildlife identification app to help identify anything that you see. Take care not to step on anything living, and remember to return anything to its original place if you move it.

Watch out for snakes when moving rocks or logs.

How do you know if an animal lives in an area even though you may not see them? They will leave traces behind like nests, ant hills, spider webs and diggings and scats. Scientists use these signs to determine which animals live in different habitats.



Wildlife type	Species name	Habitat type (eg. tree, bush, grass, water, rock, log)
Insect – beetle, butterfly, moth, ant, grasshopper, bee, wasp Spider		
Bird		
Frog		
Reptile		
Mammal		

Biodiversity Wordsearch

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

Biodiverse
Biome
Bioregion
Ecosystem
Fauna
Flora
Habitat
Life
Soil
Species
Water

Which types of animals use which types of plants for food and shelter? Small lizards may live in native grasses, or be found on a tree trunk. Small birds may eat berries from a bush, but shelter in taller trees at night. Can you think of others?

Did you find any evidence of animal homes and shelters?

How many different types of wildlife did you observe or hear?

Wildlife Detective – Teacher Resource

Suggested Lesson time – 1 lesson, approximately 50 minutes each

This lesson will help students understand more survey techniques for animals, and signs of animals within urban habitat. It can be a standalone lesson or be combined with any other worksheet and lessons in the Habitat Warriors range, for example linking it to other species with 'Insect Safari, or to specific insect habitat with 'What's the Story with Understorey', 'Lovely Leaf Litter' and 'Habitat Assessment'.

At the end of this lesson students will:

- Understand more about the types of signs animals leave in the environment, such as nests, tracks and scats (poo!), and the ways scientists survey for animals in different habitats.
- Know how to use different equipment to look for animal signs, including magnifying glass and binoculars.
- Be able to use a field guide to identify animal signs and species.

This lesson can be made suitable for all Primary levels – suggestions on how you could 'level up' the lesson are also given, and the detailed links to the Victorian Curriculum can also provide additional ideas.

Basic Lesson Outline

Introduce the concept of animal signs, explaining what kinds of signs animals leave, such as footprints, scats, burrows, etc.

- Ask students to name some types of familiar animal signs they see on the school grounds
- What kinds of signs might you see in different habitats? (hint: burrows and footprints for terrestrial species; nests and scratch marks on trees for arboreal species and birds...etc)
- What kind of equipment might scientists use to observe animal signs? (hint: binoculars, magnifying glass, field guides, spotting scopes, etc)

Provide students with the 'Wildlife Detective' worksheet.

Explain the practical task

- Only small logs and rocks should be moved; moving larger items disrupts habitat and could be a safety hazard
- Organise the class into small groups to undertake the observation task; ensure each group has either a physical field guide, or a suitable app on a tablet
- Leave plenty of time for the students to complete the practical task.

Class discussion

- What types of animal signs did you see?
- Did you see any animals while you were looking for signs?
- What was the most common sign of animals across the whole class?
- How could the school provide more habitat to support greater animal biodiversity?

Lesson Level Up

There are multiple ways to extend and expand this lesson to make it more comprehensive and/or introduce more complex topics for older children/year levels. For example:

- Expand the English component: Using some of the words in the provided word search, ask students to write a short descriptive text describing animal habitats, and the kinds of signs animals leave in their habitats. This activity can be altered to suit any primary level.
- Expand the Science component: Animals have adaptations that help them live in their habitat in the environment. Using some of the species observed during the practical task, ask students to name some of the adaptations those species have that help them survive in their habitat. For younger year levels this could be relatively simple – such as birds have feathers that allow them to fly, or become more complex, such as birds have a particular shaped beak that allows them to specialise on a certain type of food, like a parrot beak that can crack seeds and nuts, etc. What kinds of animal signs relate to these adaptations (i.e.: birds leave feathers, parrots leave the husk of seeds and nuts, etc)? The complexity of this section could be adjusted depending on year level.
- Expand the Arts component: Using a device such as an iPad, Phone or digital camera, get students to photograph some of the animal signs they see during the practical activity. Students may experiment with macro photography for smaller signs, such as prints and spider webs, and with zoom for further away items such as bird nests.

The complexity of this exercise could be expanded to include a discussion of the kinds of patterns seen in animal signs and/or as a class art display, if images were printed out.

Detailed Curriculum Links

Science			
	Foundation – Level 2	**Level 3 – Level 4**	**Level 5 – Level 6**
Science Understanding			
Science as a human endeavor	People use science in their daily lives	Science knowledge helps people to understand the effects of their actions	Scientific understandings, discoveries and inventions are used to inform personal and community decisions and to solve problems that directly affect people's lives
Biological sciences	Living things have a variety of external features and live in different places where their basic needs, including food, water and shelter, are met	Living things can be grouped on the basis of observable features and can be distinguished from non-living things	Living things have structural features and adaptations that help them to survive in their environment
Science Inquiry Skills			
Questioning and predicting	Respond to and pose questions, and make predictions about familiar objects and events	With guidance, identify questions in familiar contexts that can be investigated scientifically and predict what might happen based on prior knowledge	With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be based on previous experiences or general rules
Planning and conducting	Participate in guided investigations, including making observations using the senses, to explore and answer questions	Suggest ways to plan and conduct investigations to find answers to questions including consideration of the elements of fair tests	With guidance, plan appropriate investigation types to answer questions or solve problems and use equipment, technologies and materials safely, identifying potential risks
		Safely use appropriate materials, tools, equipment and technologies	
Recording and processing	Use informal measurements in the collection and recording of observations	Use formal measurements in the collection and recording of observations	Construct and use a range of representations, including tables and graphs, to record, represent and describe observations, patterns or relationships in data
	Use a range of methods, including drawings and provided tables, to sort information	Use a range of methods including tables and column graphs to represent data and to identify patterns and trends	
Analysing and evaluating	Compare observations and predictions with those of others	Compare results with predictions, suggesting possible reasons for findings	Compare data with predictions and use as evidence in developing explanations
			Suggest improvements to the methods used to investigate a question or solve a problem
Communicating	Represent and communicate observations and ideas about changes in objects and events in a variety of ways	Represent and communicate observations, ideas and findings to show patterns and relationships using formal and informal scientific language	Communicate ideas and processes using evidence to develop explanations of events and phenomena and to identify simple cause-and-effect relationships
English			
Language			
Phonics and Word Knowledge			
Literacy			
Interpreting, analysing, evaluating Texts in context			
Visual Arts			
Explore and Express Ideas Visual Arts Practices Present and Perform			