

Stage 4 Lesson 9

Oxley Park Woodland Discovery Excursion - Teachers Guide

Site 3: Oxley Park Reserve, Tamworth – Endeavour Marsupial Park Depot track

This document provides information for an excursion to Oxley Park Reserve. It covers safety aspects, getting to the location, accessing the trail through the reserve, and the stopping points for various activities. The activities and associated tasks given here are included in the education package; all the tasks to be undertaken during a visit to a site are suitable for inclusion in a field trip to Oxley Park Reserve 'special place'.

Safety in the bush

Teachers will be required to undertake their own safety assessment for a class visit. Some safety concerns for Oxley Park, and potential remedies, are listed in Table below

Potential hazards and remedies

Potential hazard	Remedy
Traffic (where activities are undertaken close to the road)	Exercise caution near roads
Snake bite	Bandages
Biting and stinging insects	Anti-bite cream
Prickly pear and tiger pear	Antiseptic cream, pliers
Falling branches	Exercise caution during windy periods
Trips and falls	First aid kit
Sun exposure	Sun protection (e.g. hats, sunscreen)
Dehydration	Carry sufficient water

Wear appropriate clothing: wearing covered, sturdy, preferably ankle-high shoes or boots and long pants in the bush lessens the chance of injury from bites and falls, and can even help limit the amount of venom entering the body in the event of snake bite.

Tracking, travel and amenities

Tracking

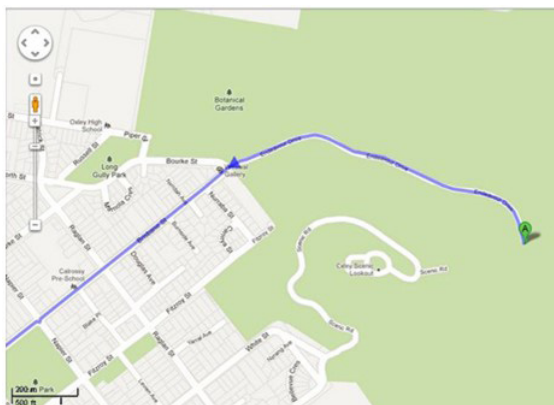
Download the Oxley Park.kmz file to your smart device (see Task 1.1 in Activity 1 for instructions for using Google Earth). Use your smart device to track your location as you approach the park and undertake the activities (the Oxley Park.kmz file includes relevant map locations).

When you set out, set the device to locate your position. On the journey, pass the device to a student and ask the student to navigate to your first stop.

Internet access may not be available in all the locations at the site, so take a printed copy of this document on the field trip, and refer to Table 3.2 for information about stops (S), points of interest (POIs) and suggested activities or tasks.

Directions and parking

- From Tamworth, take Endeavour Drive (opposite Brisbane Street, where that street crosses Bourke Street).
- Travel along Endeavour Drive to the Endeavour Marsupial Park. Ample parking, away from traffic, is available at the Marsupial Park, marked as point A on the map.
- Two observation stops are included along Endeavour Drive; both have parking bays for the bus to stop in and, at one of the stops, students can alight from the bus.



Getting to the study site

The main study site is located behind the Endeavour Marsupial Park. Walk along the services track at the end of the parking area to get onto the walking trail that forms part of the study site. Going east from the parking area along the track, the walking trail deviates from the services track near the gate. Check these locations on your smart device.

Amenities

Toilets, a barbecue and a picnic shelter are available within Endeavour Marsupial Park between 8.00 am and 4.45 pm.

Undertaking activities

When entering Endeavour Drive gateway on your way to the Endeavour Marsupial Park, observe the white cypress pine, native shrubs and exotic shrub regrowth on the slope on the southern side of the road.

Table 3.2 Oxley Park Reserve stops and points of interest

Stop (S) or point of interest (POI)	Location and directions	Activity or task
S1	Endeavour Drive roadside Pull off the road onto the verge at the location marked on the map. Check your position on your smart device or printed map.	Stay on the bus – have a general discussion about encroachment of weeds. Observe the regrowth of the area that was cleared grassland as recently as 1980. Weeds and native plants are regenerating along the roadside and lower part of the slope.
S2	Endeavour Drive roadside Pull off to the roadside verge and disembark. Check your position on your smart device or printed map.	Stop and look at weeds, and growth of white cypress pine. Start Activity 1 (Tasks 1.5.1–1.5.3) random meander. Start completing the <i>Random meander observation datasheet</i> from <i>Activity 1 – Record sheet</i>: identify weeds and native plants using the pictorial guides and look for plants with labels (blue = exotic, yellow = native). Stop and look at the cypress regrowth, which is thick at this point and clearly has no understorey. This pine is sensitive to fire, unlike the eucalypts and many shrubs that have evolved with fire; however, there is no evidence of fire at this 'special place'. Answer Questions 3.1 and 3.2, below. Along Endeavour Drive, look for the weeds bridal veil creeper and coolatai grass. Answer Question 3.3, below. Note: Tiger pear has sharp spines and is found in this area, so take care when walking.
S3	Marsupial Park parking area At this stop, prepare to walk, with gear, up the hill and along the track behind the Marsupial Park.	Continue Activity 1 (Tasks 1.5.1–1.5.3) Walk along the track and, using the pictorial guides, look for labelled native plants (including dry rainforest plants), weeds, and plants used traditionally by Aboriginal Australians. Observe the structure of the vegetation (tree canopy, shrub layer and ground cover layer), and complete the datasheets in the record sheets. This activity allows you to see how the vegetation structure changes from shrubby to grassy woodland on exposed north-facing slopes; then to relict Gondwanan species, ferns, and moss or lichen growth in the protected gully and on south-facing slopes. North-facing slopes are exposed to full sun for much of the day (hotter and drier sites), whereas south-facing slopes are shaded most of the day (cooler and moister sites). Students can use a smart device or compass to determine the direction the slope faces, and can also estimate the degree of the slope they are facing (if they wish). Steep rocky slopes have shallow soils and are highly susceptible to erosion, whereas flat areas often have deeper soil. Start Activity 6 (Task 6.6) – keep a lookout for animal habitat and scats along the walk.

Stop (S) or point of interest (POI)	Location and directions	Activity or task
S4	Bird listening/'quiet' site	Potential site for Activity 7 (Tasks 7.3, 7.4), or set this up at S5.
POI1	White box endangered ecological community (EEC)	Observe the structure of the white box woodland (endangered).
S5a S5b	Bird calls/foraging or quiet listening. The GPS waypoints provided locate the white pegs for the beginning and end of each transect: Begin Transect 1 (peg) End Transect 1 (peg).	a, b Grassy white box woodland c, d Shrubby white box woodland Set up the transect between the posts for Transect 1. Choose a survey method to determine whether this transect is grassy white box woodland or shrubby white box woodland, and think about how the structure could change between the two transects. Repeat for Transect 2. Comparing the two transects allows you to see how the vegetation structure changes from shrubby to grassy woodland in the absence of fire (i.e. fire prevents the establishment of a shrubby layer by killing shrub seedlings and promoting the growth of native grasses). Discuss the importance of this area for the environmental services it provides to local landholders and the broader community. Start activities: • 2 (Task 2.2) • 3 (Tasks 3.3, 3.4) • 4 (Tasks 4.2, 4.3) • 5 (Tasks 5.2, 5.3) • 6 (Task 6.5)
POI2	Weedy gully	Potential site for Activity 7 (Tasks 7.3, 7.4); however, complete this activity before setting up any transects, to minimise disturbance. General observations – natural drainage line, look for high weed numbers.
POI3	Dry rainforest plants	Observations continued – dry rainforest.
S6	Main gully	Check this gully area for weedy plants and dry rainforest plants. Notice the rocky gully base and the ferns, and mosses and lichens growing on rocks and trees. Complete activities: • 1 (Tasks 1.5.1–1.5.3) • 6 (Task 6.6). Answer Questions 3.4–3.6.

Notes: The stops and points of interest are marked on the Google Earth file *Oxley Park.kmz*. Continue to use your smart device to track to your activity sites.

Questions

3.1: What is the problem with limited or no ground cover?

Answer: Soil erosion, especially on slopes.

Question 3.2: What would happen if a fire went through and killed the cypress pines on the slopes?

Answer: Fire is a complex topic but, put simply, fire-sensitive plants would be killed (including most weeds) and fire-adapted native plants (e.g. wattles, eucalypts, native peas and grasses) that have evolved with fire would regenerate more quickly.

Question 3.3: What can you do to help stop the spread of bridal veil creeper and coolatai grass?

Answer: Identify and report any sightings to your local council. Keep your vehicles clean to avoid seed dispersal.
(Teacher note: The control and management of weeds could be part of a class discussion after the excursion.)

Question 3.4: Why does this area contain more rainforest species, and more ferns, lichens and mosses?

Answer: Steep gully provides protection. Rain water runs and seeps downslope providing a wetter environment for plants? Notice there are more ferns, mosses, and lichens growing on the south-facing slope – use the smart device or compass to check the aspect of the slope (direction the slope is facing if you stand in front of the slope) and notice the steepness of the slope.

Question 3.5: Why are there so many weeds in the gully?

Answer: Some seeds are transported by water, but most are deposited by birds as they fly along the clear lines of the gully, depositing seeds within their droppings.

Question 3.6: What does the presence of remnant rainforest tell you?

Answer: Millions of years ago, rainforest was spread across Australia. As Australia dried as the continent drifted north, the rainforest was overtaken by dry adapted species, leaving just a few gully remnants. These are very special places as they have survived dramatic change over long periods.

Question 3.7: What evidence is there that traditional Aboriginal life had a lower impact on the land than modern day land use methods? What was the key tool of the Aboriginal people?

Answer: Scar trees are a result of where a traditional tool was harvested from a tree. The tree is left in place to continue to live to provide other environmental services, from shade to fire wood and even oxygen to breathe. Modern European land use contrasts greatly in that vegetation is removed or greatly altered to provide a landscape suitable for purposes such as agriculture. Aboriginal knowledge of the landscape, seasons and bush food provided tremendous advantage for survival.



Source: Phil Spark NW LLS