

Maribyrnong Valley Parklands – Brimbank Park

An excursion and fieldwork resource for schools



Congratulations for taking the leap outdoors!

Excursions and field trips are an important part of the educational experience for students, offering hands-on, concrete experiences that are important for reinforcing key concepts taught in the classroom.

Our aim is that every student leaves a park or reserve with a greater appreciation not only of its unique values, but how these are connected to other places and larger issues, and a desire and the know-how to get involved in making a difference.

Our excursion/fieldwork resources aim to help students:

- develop a sense of wonder, curiosity and respect for our parks and the people and environments they support
- develop their knowledge of their own locality and region and how places are connected
- understand the changes that are occurring in our parks and what strategies are being employed to manage these changes
- consider some of the complex interrelationships between the physical environment and the flora, fauna and fungi that live in our parks
- become informed, responsible and active citizens who contribute to the protection of our special places.

This resource is designed to provide teachers with ideas for planning exciting and experiential learning activities out in our beautiful parks, reserves and waterways.

We would love to hear about ways we can improve this resource to support teachers who take their lessons outdoors. Please contact education@parks.vic.gov.au with your feedback.

Why visit?

Just a short drive from the heart of the city is the Maribyrnong Valley Parklands, featuring Brimbank Park. It is located approximately 15 kilometres north-west of Melbourne in Keilor East. You can enjoy the natural values within the park including river lands, escarpments and grasslands. The park is accessible to all school year levels and abilities and includes a range of facilities. The park has a range of native flora and fauna, which takes students out of the busyness of Melbourne and into nature. Brimbank Park is as diverse as an isolated national park while being only a short distance from the Melbourne CBD. Students are able to undertake a range of activities and data collection at Brimbank Park to assist in their studies.

For teachers

This self-guided excursion is designed to be linked to the Victorian Curriculum for the subjects of geography, science and history, but can be enjoyed by a wide range of students who want to explore, discover and learn about our parks. It is suitable and scalable from Levels 5–10. Some suggested linkages to the Victorian Curriculum are provided below:

Subject	Level	Content descriptions
Geography	5-6	Factors that shape places and influence connections
	7-8	Water in the world Landforms and landscapes
	9-10	Environmental change and management
Science	5-6	Biological sciences
	7-8	Biological sciences Earth and space sciences
	9-10	Biological sciences
History	5-6	The Australian colonies
	7-8	Aboriginal and Torres Strait Islander peoples and cultures

For additional information on the park, visit the [Maribyrnong Valley Parklands - Brimbank Park webpage](#) where you can download the [visitor guide](#) and find information on facilities, management plans, maps and images. The field trip can be completed in two hours or you can opt to spend half a day completing multiple activities.

Before you go

Make sure you have reviewed the information provided for planning an excursion at <http://parkweb.vic.gov.au/learn> for safety and permit requirements and have checked the facilities available.

All groups are required to let us know you're coming. Please complete a Group Activity Statement downloadable from <http://parkweb.vic.gov.au/learn> and email to: groupactivities@parks.vic.gov.au at least four weeks prior to arrival. This will assist us to alert you to any park closures, storm damage or management activities such as planned burning or pest animal programs that may affect your visit. It also forms part of your group's emergency management plan and provided quick access to emergency contacts, should your group need assistance.

You will be visiting a park that is an important home to many species of plants and animals, some found in only a few other areas, and others nowhere else in the world! Please remember to keep to the paths, don't pick or take any vegetation and take your rubbish home with you. Avoid walking along the river, as this causes erosion of the sensitive riverine environment.

For safety in the bush we recommend a leader to group size ratio of 1:10, as outlined in the Adventure Activity Standards for Bushwalking. Please read through our [Minimal Impact Guidelines](#) to help plan your trip to ensure you tread lightly on our environment.

Collecting data

We encourage you to gather primary data during your field trip to support a truly immersive and hands-on experience. Pictures, drawings and records of sightings are all easy to take and don't require a research permit. If you'd like to do something that involves moving off the paths, including transects or quadrats, you are required to complete an [application for a research permit](#).

Structuring your excursion

Brimbank Park is open between 8:30am and 5:30pm every day. There is a lockable gate, so please make sure your field trip is completed well before 4:30pm. During Daylight Saving hours the park is open from 8:30am to 7:00pm.

On entry to Brimbank Park from Keilor Park Drive, encourage students observe the landscape. The road winds through the grassland on the ridge top, providing views of the tree tops that line the banks of the Maribyrnong River 55 metres below.

Starting at the Interpretation Centre, accessed from Carpark A, meet with a ranger for a pre-arranged talk, or follow the wide, sealed path up onto the grasslands. Take in views of the meandering Maribyrnong River as it flows around Horseshoe Bend, and contrast the view with the human development on the ridge line in all directions.

Follow the pathway to get closer to the Maribyrnong River. When you reach the ford, watch the water movement through the fishways and look for water creatures or birds along the opposite sandstone rock bank. Continue along the river side path through the dry billabong, and admire the tall, majestic River Gums, as small birds dart through the shrubs around you.

Further around the bend, a small track leads to Sandy Beach – an ideal spot to investigate the impacts of water movement within the valley. On the opposite side of the river you can see evidence of erosion and efforts to stabilise the bank.

Be alert and spot the scar tree from which indigenous people once removed the bark for making implements. Continue on to the next ford. This is different in design being formed from basalt, and if you look carefully you will see gas bubbles from when the molten lava cooled. Compare the waterway in each direction noting any introduced species as well as any variation in the natural vegetation and the water movement.

There is the option to continue across the ford to the Kulin wetlands, where frogs can be heard, including the Growling Grass Frog and the Eastern Banjo Frog. Allow 20 minutes to complete a circular walk in this area.

On your return to the café area, stop off at the Dodd Homestead. The low stone basalt fence demonstrates how farmers in the 1880s fenced paddocks to control animal movements. Look up the slope further and two cypress trees can be seen; remnants of the original driveway to the homestead. The wide expanses of cleared land are evidence of their farming activities.

The Playscape near the café has been designed to incorporate the indigenous and European history of the land where Brimbank park is located. It is a creative haven for children of all abilities to explore and learn.

Learn and discover

1. Landscapes and landforms

The Western Volcanic Plains of Victoria were formed over a period of roughly 5 million years, as lava steadily flowed from one of the many now dormant volcanoes in the area. Covering a space of 2.3 million hectares, they make up the third largest volcanic plains in the world.

Maribyrnong Valley Park is situated along the edge of the Western Volcanic Plains, and covers an area of 361 hectares. It is made up of Brimbank Park (328.7 hectares) and Horseshoe Bend (32.3 hectares).

To the west of Melbourne's Tullamarine Airport, the tributaries of the Jackson Creek and the Deep Creek, carrying water from the Mount Macedon area, join to form the Maribyrnong River. The Maribyrnong River is an important feature of the landscape, having cut a deep valley through the surrounding basalt plains on its southward course. The encircling ridges of the river escarpment provide panoramic views of both Brimbank park and the surrounding region.

2. Water in the landscape

The Maribyrnong River has played an important role in shaping the landscape and supporting biodiversity within the park. Travelling all the way from Macedon, the water takes about two days to reach Brimbank. Here, the river winds back on itself in a giant horseshoe bend. It then travels south again through the Maribyrnong Valley Parklands towards Footscray, and finally links to the Yarra River before moving out to the ocean.

The river provides an oasis for a diverse community of plants and animals. For this reason, Indigenous people would have relied on the river and the valley for both hunting and living purposes.

Today, some of the water used in the city drains into the Maribyrnong River. When we wash our cars, tip oil down the sink, or throw our rubbish on the ground, chemicals and litter can easily make their way into the river and spread throughout Brimbank Park. As the population of Melbourne continues to grow, the amount of pressure we put on the river and the living things that rely on it will only increase.

As climate change intensifies, the number of extreme weather events like heat waves and severe storms are predicted to rise. Extreme weather events affect water availability within Brimbank Park in a number of ways. During periods of drought, the river level drops and water availability for local plants and animals is reduced. During severe storms, the river is known to flood – sometimes half way up the hill to Dodd's cottage. Rising river levels destroy habitats and remove food sources for wildlife.

3. People on the land

The area now known as Brimbank Park is situated within the traditional land of the Wurundjeri-willam and Marin-balluk, people of the Woiwurrung language group within the larger Kulin nation. For over 40 000

years, the two clans have inhabited the Maribyrnong valley, making use of the river landscape for trade, travel and resources. The name Maribyrnong comes from the Aboriginal term *Mirring-gnay-bir-nong*, which translates to “I can hear a ringtail possum”.

The two clans of the Woiwurrung language group formed a close association with the Maribyrnong River, sharing its bounty of resources from opposing banks of the river. The Marin-balluk occupied the area between the Maribyrnong River and Kororoit Creek, while the territory of the Wurundjeri-willam stretched from the northern banks of the Maribyrnong River continuing around to just east of the Yarra River.

Archaeological studies have documented an extensive range of Aboriginal cultural heritage sites within Brimbank Park and the Lower Riverlands. These include stone quarries, artefact scatters, cooking hearths and scar trees. In the eyes of the many Aboriginal peoples, these locations are interconnected and thought of as a whole landscape, rather than individual sites as recorded in a scientific context.

The area around Brimbank Park, which follows the Maribyrnong River through rich volcanic plains, would have provided ample food resources for the local people. The Marin-balluk and Wurundjeri-willam people's life, of complex social and spiritual observances, enable them to adapt to the numerous environmental changes that have occurred to Victoria's volcanic, grassy plains over many thousands of years.

The ability to survive off the land relied on an intimate knowledge of the landscape. Aboriginal people's movement through Country was highly attuned to seasonal availability and the abundance of various plants and animals.

Brimbank Park was first settled by Europeans in the 1830s. The name is thought to have originated from the farmers moving their sheep and cattle 'around the brim of the bank' of the Maribyrnong River. From the early 1840s the area was divided into many grazing properties that supplied the Melbourne market with sheep and cattle. The sheltered grassy plains, woodlands and supply of water from the river provided ideal farming conditions. From the 1880s dairy farms, orchards and market gardens replaced much of the grazing in the valley.

Between 1854 and until the early 1900s the land was subdivided and was owned by a variety of landowners. In 1848 the Dodd family bought the area that became known as Brimbank Farm. The Dodd's family cottage can still be seen today in Brimbank Park, near the main building. A long tree-lined driveway led to the cottage – two heritage listed cypress trees remain today. The heritage listing means the trees cannot be removed. Similarly, the stone wall that was made as a boundary is heritage listed. Europeans used walls and confined 'their land' for farming of European grains, foods and livestock. This was extremely damaging to indigenous people, as they lost access to their hunting grounds and water sources

Today, Wurundjeri people continue to live, practice and strengthen their culture in the Maribyrnong area. The [Wurundjeri Land and Compensation Cultural Heritage Council Aboriginal Corporation](#) is a Registered Aboriginal Party, representing the traditional owners of the area. They ensure that their culture and connection to place is maintained into the future.

4. A unique ecosystem

There are not many places left to see native flora and fauna in the wild around Melbourne. National Parks are important for learning the importance of native wildlife, native plants and the affects we have on them. Brimbank Park is a very special place for many species of native animals, grassland and heritage listed trees.

The park is home to an amazing variety of fauna. Of the 135 species within the park, there are 101 birds, 12 reptiles, 11 mammals, eight frogs and three fish. The park now provides habitat for many native fauna species that used to live across the Western Volcanic Plains, including small insectivorous bats, sugar gliders, Black Swamp wallabies, platypuses and a wide variety of birds.

Four broad vegetation communities are present within Brimbank: Flood Plain Riparian Woodland (21 hectares), Grassy Wetland (three hectares), Plains Grassland (14 hectares) and Rocky Outcrop Shrubland (15 hectares). In total, there are around 53 hectares of indigenous vegetation (15 per cent of the total area of Brimbank Park), 32 hectares of which are remnant, and the remaining area reflects the extensive revegetation program that has been undertaken.

The plains grassland communities are characterised either by silky blue-grass, redleg grass, kangaroo grass, smooth rice flower with a scattered middle storey of tree violet and sweet bursaria. A few canopy trees comprising Lightwood and drooping she-oak also form part of these communities.

The river corridor comprises Riparian Woodland and contains river red gum, sweet bursaria, tree violet, silver wattle and blackwood with ground flora dominated by kangaroo grass and tussock-grass. An extensive middle storey including golden spray, woolly tea-tree, alpine bottlebrush and common reed adjoining the river dominates the two areas of grassy wetland.

Native river red gums can be found throughout the park, but occur in the highest density at the billabong. These trees are 500 years old, and a very significant feature of the landscape within Brimbank Park. Each tree has individual characteristics determined by weather, nutrients and pests. Many of the trees have hollows where branches have naturally fallen off. These hollows provide critical habitat for wildlife, including the common brushtail possum and many species of birds. Animals can be seen around the billabong, including bush wallabies and wombats, as well as bats, insects and birds, such as kookaburras, white-plumed honeyeaters, wrens, willie wagtails, swallows, ducks.

5. Managing the park today

The land for the park was first acquired for public open space by the former Board of Works in 1974, with the first stage of Brimbank Park opened to the public in 1976. Horseshoe Bend Farm was opened some years later. Market gardens still exist north of the park today around Keilor, taking advantage of the rich river terraces. The Maribyrnong River is a key feature and attraction of the park for visitors, offering an environmental corridor and support for recreational activities. The introduction of European plants, animals and farming practices drastically changed the landscape within Brimbank Park. Although it will never be returned to its original state, extensive revegetation programs have helped to restore a large portion of indigenous vegetation communities.

Introduced plants and animals (weeds and pests), and the impacts of recreational activities threaten the ecological values of Brimbank Park. Parks Victoria manage these threats through the park management plan (downloadable from [parkweb](#)).

Park management activities aim to maintain or improve habitats and protect the geological formations that make the park extra special. Rangers and volunteers continue the revegetation efforts that began in 1976. These replanting programs have transformed a highly degraded and farmed site into the beautiful park we can access today. One of the challenges with revegetation is that native species like kangaroos like to eat fresh young shoots, so part of the work done by volunteers involves building tree guards to give the plants a

start in life. In some of the trees you'll notice nest boxes that support populations of micro bats and sugar gliders.

Today, Brimbank Park is fringed by urban development. When introduced or non-native plant species (weeds) occur close to park boundaries, seeds can be carried by wind, birds, tyre treads and the soles of shoes, and end up inside the park. Weeds compete with native plants for space, nutrients and sunlight. They change the natural diversity and balance of ecological communities and can affect the function native species have in providing nutrients and habitat for other species.

There are also a number of introduced animals that occur within Brimbank Park. Rabbits are of major concern, as they eat and stunt the growth of native plants, and spread weeds through their droppings. Other feral (non-native) animals occurring within the park include foxes, cats and dogs. The presence of these predatory species means the small mammals that would have originally lived in the area cannot be successfully reintroduced.

The maintenance and improvement of visitor facilities is another major part of park management. National parks are for the enjoyment and education of people, as well as to protect the natural and cultural values found within them, so it's important to provide and maintain car parking, toilets, picnic tables and other facilities to support visits to the parks. The information centre interpretive panels are a way that Parks Victoria seeks to engage visitors to the park in learning about the place.

Discover and reflect

You might like to enhance your excursion with some activities and inquiries that help students record and extend their learning back into the classroom. You might like to complete one or more of the following:

1. Take photos to create an annotated photolog or poster of your field trip to share with classmates. You could use social media to share it with friends.
2. Create a short video that helps tell about the significance of the Maribyrnong River.
3. Map your field trip using software such as Scribblemaps, Tour Builder or Snap2Map, annotating what you've learned at various points.
4. Create a sound map of various points around the park, taking a series of 30-second audio recordings, referenced back to points on a map. Students can also record their audio observations on paper, using lines made from a central point to indicate the direction, type and frequency of sounds they hear, and whether it adds or detracts from the environment.
5. Brimbank Park is on the edge of the Western Volcanic Plains. Discover the closest volcanoes that would have helped to form this land. What role did plate tectonics have in shaping the land?
6. With the use of a map outline, describe the river landscape within Brimbank Park. Include the shape of the river, the river width, rock types along river banks, areas of River Red Gums, and man-made structures.
7. Research the formation of a river meander. Suggest how this landscape may change in the future.
8. Aboriginal people have inhabited the Maribyrnong area for over 40 000 years. During that time, the Earth would have experienced some huge changes. Describe some the changes to the landscape that the local clans would have witnessed. For example, what would Port Phillip bay have looked like at the end of the last ice age?

9. Research some of the ways that the Wurundjeri-willam and Marin-balluk people might have used the river landscape. Think about how they traded with other communities, how they travelled, what they ate and what tools they used.
10. How do you think the changes Europeans settlers made to the landscape affected native flora and fauna? What evidence supports your ideas?
11. The vegetation along the river is quite different to that on the escarpment. Compare the different types of vegetation, suggesting how the physical environment accounts for this change in vegetation type. Include photographs of the vegetation to support your view.
12. Narrow patches of habitat are not ideal for nature conservation, but when areas are joined up as habitat corridors plant and animal species can thrive. Explain how Brimbank Park as part of the Maribyrnong Valley Parklands achieves a conservation environment.
13. Today Melbourne's suburbs surround Brimbank Park. Assess the quality of the amenity of the park. Consider the views, impact of housing, major road locations, airport, noise, powerlines, space, vegetation, number of park users and the types of use. Does your assessment differ depending on if you are on the escarpment or by the river?
14. Study the recreational facilities provided throughout the park. Assess whether the facilities cope well with the number of visitors on week days compared to weekends, and in summer compared to winter. Is there adequate access for people with disabilities?
15. Discuss the role national parks play in connecting people to their environment, or influencing peoples' personal relationships to nature.
16. Become a citizen scientist and help land managers track the species found in the park. Use the iNaturalist app to contribute to the park's species list, or use our 'Become a Park Scientist' worksheet.

Get active

[Contact the ParkConnect team](#) if you would like to get your students involved in some hands-on volunteer activities in Brimbank Park.

Parks Victoria respectfully acknowledges the Traditional Owners of what is now known as Victoria. For many thousands of years they have lived in harmony with, and carefully managed the Country for which they have a deep spiritual connection. Contemporary Aboriginal people are proud of their ancestry and in addition to their inherent rights, they have spiritual and cultural obligations to ensure that their ancestral land and culture is managed responsibly and appropriately.