

# The Local Environment

## Field of Mars Reserve - Yr 11 Earth and Environmental Science



School name:	
School phone:	
Organising teacher - first name:	
Organising teacher - last name:	
Email:	
Mobile:	
Excursion program list:	E&ES: The Local Environment
Start time:	9.30am
Finish time:	2.15pm
Date:	
Approx student numbers:	
Number of classes:	
Grades:	
Participating staff and email addresses:	

Field of Mars Environmental Education Centre  
 Postal: PO Box 2082 BORONIA PARK 2111  
 Street: 220 Pittwater Rd EAST RYDE 2113  
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 Twitter: @fieldofmarseec #eecnsw  
<https://www.facebook.com/fieldofmarseec/>

## Teacher checklist

**Location** – Field of Mars Reserve, western side of Pittwater Road, East Ryde.

**Bus access** - give supplied access information to driver. No bus entry into Field of Mars Reserve.

**Cost** - DOE \$18.00 per student, no GST.  
Non Gov School Cost: \$28 per student (GST free, minimum charge \$550)

**Bring** - essential items only: medications, food, water, sunblock, hat and raincoat packed in a small backpack. There are no shops to purchase food.

**Clothing** - sports uniform recommended. Hats and sturdy closed shoes essential for all visitors.

**Staffing** - classroom teachers will be involved in all activities including rugged bushwalking.

**Extreme or wet weather** - may result in the excursion being modified, postponed or cancelled. This includes days predicted to be above 35°C, high winds, extreme bush fire danger and dust storms.  
Ph: 98161298

**Cancellations** - less than two weeks notice \$100.  
This does not apply to cancellations due to weather.

**Medical or special needs** - please notify EEC staff.

**Limited bin access** - all student waste will be taken home by students so 'nude food' containers are encouraged.

**Student welfare** - students will be outdoors all day, carrying their bag and along rugged terrain. It may not be suitable for students who have been recently unwell.

**Assessment** - Field of Mars has an "off the shelf" worksheet for this excursion, but is more than willing to work with your school to tailor the program and worksheet to best fit your assessment needs.  
Please get in touch ASAP if you would like to do this.

## Learning activities

### Introduction (Field of Mars classroom)

A brief session will introduce students to the reserve, past and contemporary human issues and their associated impacts, important secondary resources, the purpose of the fieldwork and the day's activities.

### Prepare for fieldwork (Field of Mars classroom)

The students will form pairs or small groups and choose equipment to collect data from primary sources in several locations in the Field of Mars Reserve.

### Site 1 (Turpentine Ironbark Margin Forest)

Record biotic and abiotic factors – dominant species and vegetation structure.

### Site 2 (Upper Strangers creek constructed wetlands)

Stormwater pollution - causes, impacts and management solutions

### Sites 3 (Ridgetop Woodland)

Record biotic and abiotic factors – dominant species and vegetation structure.  
Observe animal evidence and relate the presence of Ringtail possums to their requirements within the local environment and the Geology and Lithology of the area

### Site 4 (Lower Strangers creek)

Assess water quality using water samples and macroinvertebrates. Weeds - identify weed species and consider their impacts.

NOTE: Depending on timing and weather this activity may be omitted by negotiation

### Conclusion (Field of Mars classroom)

Analysis of the Strangers creek bioremediation plan document. Tying the experience together, making sense of results, summarising & concluding statements as per syllabus and/or school assessment task.

## HSC preliminary E+ES course outcomes

students:

- Identify data, gather, process and present information as a report that identifies and describes the geological features of the local landscape.
- identify, gather and process first-hand or secondary data to identify the dominant types of plants and animals in the area studied
- identify data, gather, process and analyse first-hand information and use available evidence to assess current human impact on the local biotic and abiotic environment
- gather, process and present information about the consequences of land clearing in a particular catchment
- gather information from secondary sources to identify significant sites of biodiversity in the local area
- relate the presence of particular animals in the local environment to their requirements within the local environment
- analyse the ways in which the vegetation of an area can be influenced by soil composition and climate
- summarise and assess the changes in the local environment in the last fifty years in terms of:
  - vegetation cover and diversity
  - animal diversity and abundance
  - water flow and quality
- explain why different groups in the local society have different views of the impact of human activity on the local environment
- identify an environmental issue that requires some government regulation or management, in this case:
  - air and water quality management
- identify an appropriate local environmental document that aims to address one of the issues above (eg environmental impact study, catchment management plan)