

# ITINERARY

## Moreton Bay Studies

## Year 11 Program

### Marine Science – Unit 2 Marine Biology

#### Learning Intentions

Students, in the role of marine scientists, conduct a scientific inquiry of the Moreton Bay marine ecosystem evaluating the effectiveness of the Marine National Park zone around St Helena Island by:

- Conducting an ecological survey of sites in Moreton Bay
- Determining species diversity using Simpson's diversity index
- Analyse the data to determine the effects of environmental factors on species abundance and distribution using a correlation matrix
- Test the significance of the effects using t-Tests
- Evaluating processes and limitations of investigation techniques

"Inspiring Champions for the Bay"

Time	Activity
8.30	Students arrive at Manly Boat Harbour, William Gunn Jetty – Wyvernleigh Close, Manly <b>Vessel safety briefing and outline of the day's proceedings</b>
8.45-9.15	<i>Transfer to Saint Helena Island</i> Groups 1 and 2 complete data prediction task Group 2 disembark on St Helena Island for data analysis session (student laptops required)
9.15-11.30	<i>Group 1 – Data collection</i> – At the study site Group 1 work together to: <ul style="list-style-type: none"><li>• complete research data cards</li><li>• deploy glider and make initial observations of benthos</li><li>• deploy the Baited Remote Underwater Video (BRUV)</li><li>• appraise ecological surveying techniques</li><li>• recover the BRUV and download the video record</li></ul> (Note – 10:00 am deploy BRUV 1)
9.15-11.30	<i>Group 2 – Data analysis</i> <ul style="list-style-type: none"><li>• Biodiversity (Simspon's diversity index)</li><li>• Abiotic effects on abundance and distribution (includes lunch and toilets)</li></ul>
11.45	<i>Dock at St Helena Island</i>
12.00-2.00	<i>Group 2 – Data collection (as above)</i> (Note – 10:00 am deploy BRUV 2) <i>Group 1 Data Analysis (as above, includes lunch and toilets)</i>
2.00	<i>Dock at St Helena Island</i> Group 1 board Inspiration
2.30	Return to Manly and board bus to school



# ITINERARY

## Students will need:

- Covered footwear
- Sun-safe clothing and hat
- Sunscreen and insect repellent already applied
- Water bottle
- Morning tea and lunch
- Clipboard and pencil

## Litter-free Lunch

We encourage students and staff to pack a litter-free lunch. Everything in it can be re-used, composted or recycled. Drinks are brought in refillable bottles.

## Location Maps

William Gunn Jetty, Manly – Corner Fairlead Cres and Esplanade, Manly



**Moreton Bay**  
ENVIRONMENTAL EDUCATION CENTRE  
*Inspiring Champions for the Bay*



**Queensland  
Government**

(07) 3906 9111  
[www.moretoneec.eq.edu.au](http://www.moretoneec.eq.edu.au)  
[admin@moretoneec.eq.edu.au](mailto:admin@moretoneec.eq.edu.au)