

## HBEEC supports BIOLOGY

Unique access to both beach and estuarine systems allows HBEEC to provide visiting schools with a number of different biology programs. Schools can choose to use our predeveloped programs and resources, or to run their own research programs on site. Senior biology programs and materials have been specially developed to align with Senior Biology and Marine Science curriculums and mandatory practicals.



### Boat Based

Students use boats to investigate mangrove ecosystems focusing on how biotic and abiotic factors relate to the biodiversity and adaptations of organisms.

Investigations include:

- Water Quality Testing (*ongoing results are available as a manipulable excel sheet [Water Quality and Mud Crab catch Data](#) for classroom data analysis*)
- Riparian Assessment
- Biodiversity counts e.g. birds, fish, yabbies
- Mud Crab Studies
- Human Impacts
- Sediment Testing
- Mangrove Watch Citizen Science Program



The [Senior Science Boating Workbook](#) covers Simpson's Diversity Index, Ecosystem classification, stratified sampling etc. and has been developed to help groups cover mandatory practicals.

### Land Based

Students investigate mangrove or beach ecosystems and collect field data.

Investigations include:

- Mangrove Identification using dichotomous keys
- Transects to study abiotic/biotic features (*data collected is contributed to the [Mangrove Watch Citizen Science Project](#) to monitor and preserve the health of our ecosystem and is used to calculate carbon storage and other factors*)
- Quadrats – crab/yabby populations, soil types, temperatures, wind speed etc.
- Indigenous Plant Trail
- Microplastic Sampling (*data collected contributes to the [AUSMAP](#) citizen Science project to monitor shoreline micro plastics*)

The [Senior Science Biology Workbook](#) covers mangrove identification, Simpson's Diversity Index, Ecosystem classification, stratified sampling etc. and has been developed to help groups cover mandatory practicals.



Programs are collaboratively planned to meet the needs and focus of each group and can also include studies related to other subject such as Earth Sciences and Aquatic Practices.

To book a space or discuss a program contact us:

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