STAGE 5: VIRTUAL FIELDWORK

Aerial view of Sydney Harbour. Source: Shutterstock

NSW Environmental and Zoo Education Centres (EZEC) have created virtual fieldwork experiences for teachers and students unable to participate in real world fieldwork in 2020.

Collated for NSW EZECs by Lorraine Chaffer, Editor and Vice President GTANSW & ACT

ENVIRONMENTAL CHANGE and MANAGEMENT

Rumbalara Environmental Education Centre (Gosford) has developed a virtual fieldwork experience to assist with the investigation of the issues related to managing coastal environments and erosion at Wamberal Beach and estuary and water quality management at Terrigal Lagoon.

The virtual excursion will allow students to experience simulated investigations such as:

- using geographical tools such as maps and compasses,
- measuring beach characteristics and abiotic factors at 'The Ruins' Wamberal (beach profile, vegetation transect, sand sizing, wind, waves)
- investigating the management of coastal erosion at 'The Ruins' Wamberal and the perspectives of different stakeholders
- observing human impact on the remnant wetland at Terrigal and learning how to construct a vegetation profile
- assessing water quality related to the Terrigal lagoon catchment
- observing change at 'The Haven' Terrigal though historical photo analysis and investigating current pressures and changes with an emphasis on the current 'Plan of Management' for 'The Haven'
- observing erosion and management of erosion at 'The Skillion' Terrigal.

Link to site and student worksheets https://sites.google.com/education.nsw.gov.au/stage-5-environmental-change-m/home.

Left: Wamberal Beach.

Wetlands Environmental Education Centre (located at Newcastle) has a virtual fieldwork program to support the topic Enviromental Change and Management. Students will investigate significant changes impacting coastal environments, and explore strategies to manage these changes. A case study of Stockton Beach at Newcastle forms the focus of investigation for this virtual leaning activity. This location is significantly impacted by coastal erosion due to interruption to the coastal processes.

Students will examine elements of the biophysical environment, impacts of human activity along with current and potential management of these issues.

The package includes pre-learning materials to support the virtual excursion.

The virtual learning includes a 60minute lesson in the field at Stockton Beach led by Environmental Education Centre teachers, to further familiarise students with the area under investigation and allow interaction with the teachers in the field. All presentations come with a student worksheet and follow up support materials.

Find out more: https://docs.google.com/document/ d/1oMHQH2SOGxQIEChSvnxVVYztAHTll_Ech6e1DL4u ij4/edit?usp=sharing

Call WEEC (02 4955 8673) to make a booking https://wetlands-e.schools.nsw.gov.au/

Above: Stockton Beach

Observatory Hill Environmental Education Centre has a virtual fieldwork program to support the topic Environmental Change and Management. Students investigate significant changes impacting global marine environments, and strategies to manage these changes. They then examine Sydney Harbour as an example of a marine environment and changes affecting it, especially microplastic pollution, impacts of seawalls on biodiversity, historical dioxin contamination and global warming.

Their website includes resources to support student's learning including a google tour around Sydney Harbour highlighting some of the most important environmental impacts.

Teachers have the option to book a 45–60min lesson on environmental change and management of Sydney Harbour, led by EEC geography teachers, to further familiarise students with the area under investigation. All presentations come with a student worksheet, and a follow up support site with extra resources and a copy and recording of the presentation.

Find out more at: https://sites.google.com/ education.nsw.gov.au/obhill-env-chng-mgmt/ home

Or, contact the Centre on 9247 7321.

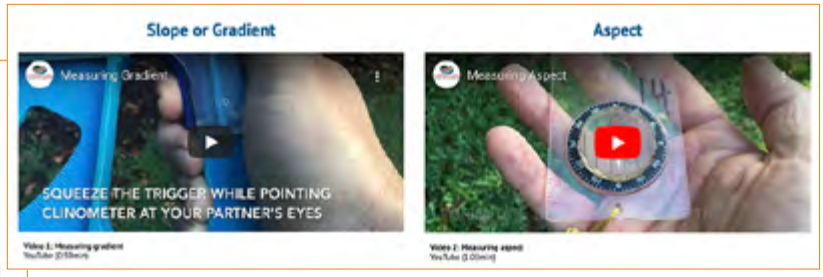
FIELDWORK EQUIPMENT AND HOW TO USE IT

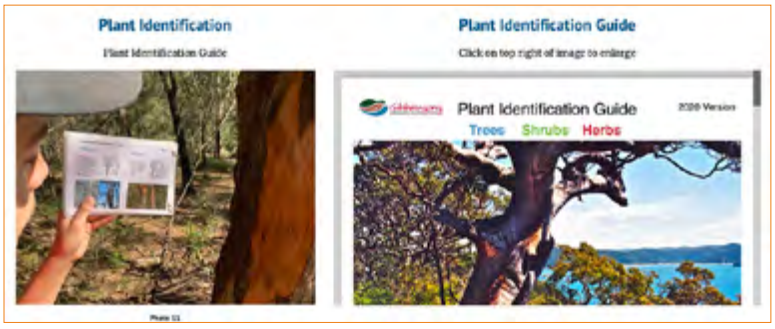
From the editor

While virtual fieldwork will never replace real fieldwork in which students make observations, gather their own data, use fieldwork equipment and answer inquiry questions about a place or issue to complete a geographical inquiry, 2020 has created a need to complete fieldwork using virtual tools. These excellent resources provided by NSW EZECs fill that gap until schools and fieldwork opportunities return to normal.

For teachers lacking confidence with fieldwork methodologies, the virtual experiences are an opportunity to learn about and understand the tools and techniques of data collection, particularly for collecting biotic and abiotic data for the topics with a natural world focus such as Landscapes and Landforms, Water in the World, Sustainable Biomes and Environmental Change and Management.

Several EECs have provided instructional videos as a part of their virtual fieldwork materials. While directed at students, these videos are excellent for teachers unfamiliar with fieldwork, fieldwork equipment and fieldwork techniques.





Images from from Rumbalara, Gibberagong, Royal National Park and Observatory Hill EEC resources in this edition of the Geography Bulletin