

# Stage 5 – Geography Environmental Change and Management

Terrigal/Wamberal and Lakes Beach/Cabbage Tree Bay

## Program Overview

The Geography Inquiry Process will be used to investigate the biophysical processors associated with coastal environments. Students investigate the causes, extent, consequences and management of the environmental change of the coastal environment.

## Key Questions

1. How do environments function?
2. How do people's views affect their attitudes to and uses of environments?
3. What are the causes and consequences of change in environments and how can this change be managed?
4. Why is an understanding of environmental processes and interconnections essential for sustainable management of environments?

## Learning Experiences & Content

### Geographical Tools

Students will use a variety of geographical tools to acquire, process and communicate geographical information such as maps and fieldwork instruments e.g. anemometers, light meters, compasses, clinometers, dumpy level / staff, sand sieves, quadrat surveys and water testing instruments.

### Beach Study

Students engage with the coastal issues through authentic hands-on investigations:

- Measuring beach characteristics (beach profile, vegetation transect, sand sizing, longshore drift, wind, waves and much more)
- investigating the management of coastal erosion and the perspectives of different stakeholders

### Littoral Rainforest Walk

(Cabbage Tree Bay only)

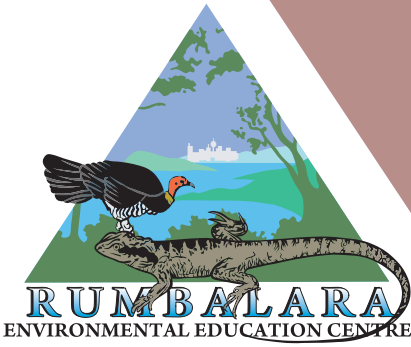
Students compare the remnant littoral rainforest and the adjacent park. They will use a variety of instruments to measure abiotic factors including anemometers, light meters and compasses to gather the results.



### Water Quality (Terrigal only)

Students will use water testing equipment to measure the quality of the water in Terrigal Lagoon. The results will be uploaded to the NSW Waterwatch database.

Students will walk through the adjacent remnant wetland area and discuss their importance. Plant field guides will be used to identify the vegetation present and a visual assessment will be conducted to identify human impact.



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## Outcomes














### Geography 7-10

- ✿ **GE5-2** explains processes and influences that form and transform places and environments.
- ✿ **GE5-3** analyses the effect of interactions and connections between people, places and environments.
- ✿ **GE5-4** accounts for perspectives of people and organisations on a range of geographic issues.
- ✿ **GE5-5** assesses management strategies for places and environments for their sustainability.
- ✿ **GE5-7** acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry.

### Geography Content

#### Investigative Study

Students:

- ✿ investigate the biophysical processes essential to the functioning of the selected environment
  - explanation of how the biophysical processes operating in the environment maintain its functioning **F**   
- ✿ investigate the causes, extent and consequences of the environmental change (**ACHGK073**)
  - examination of the causes and extent of change to the environment **MGS**  
  - analysis of the short and long-term consequences of the environmental change  
- ✿ investigate the management of the environmental change, for example: (**ACHGK074, ACHGK075**) 
  - discussion of the factors influencing the management responses eg worldviews, competing demands, technology, climate change   
    - comparison and evaluation of the effectiveness of the management responses in achieving environmental sustainability  
    - proposal of how individuals could contribute to achieving environmental sustainability for the environment 