

# Case Study “Environmental change and management of the coastal environment”

## Activity Sheet 1 “Why is Australia’s coastal environment important?”

### Introduction

Activity Sheet 1 is an introduction to the case study “The environmental change and management of the coastal environment”. More specifically it introduces students to the importance of Australia’s coastal environment and the pressures that it is under. The content of this activity sheet relates to the following Geographic Concepts and Skills and Geographic Knowledge.

### Geographic Concepts and Skills

#### Data and Information

- Collect and record relevant data and information, using ethical protocols, from reliable and useful primary and secondary sources.
- Select, organise and represent data and information in different forms, including by constructing special purpose maps that conform to cartographic conventions, using digital and spatial technologies as appropriate.

### Geographic Knowledge

- Environmental, economic and technological factors that influence environmental change and human responses to its management

### Introductory Activity

Below are a range of fun facts about Australia’s coastal environment put in the form of questions and answers.

- How many beaches are there in Australia? 10,685
- How many years would it take to visit a different Australian beach every day? 27 years
- How long is Australia’s mainland coast? 35,877 kilometres
- What is the total length of Australia’s coast, including islands? 59,736 kilometres
- What is the largest sand island in the world? Fraser Island
- What is Australia’s longest beach? 90 Mile Beach
- Which state has the largest number of islands? WA with 3,747 islands
- Which beach was named Australia’s first national surfing reserve? Bells Beach

- Winki Pop is a surf break found off which Australian beach? Bells Beach
- On which Sydney beach is Home and Away filmed? Palm Beach
- What is the world's biggest single structure made by living organisms? The Great Barrier Reef
- Approximately how many thousand fish species can be found in the Australian marine environment? 4,000
- What percentage of southern marine species cannot be found in other parts of the world? 80%
- How many species of seabirds have been recorded in Port Phillip Bay? 80
- Approximately what percentage of Australia's population live within 50 kilometres of the coast? 80%
- What is Australia's 6<sup>th</sup> largest city? The Gold Coast
- Approximately how many million recreational visits are made to Victoria's coastal environment each year? 70 million
- How many people visited the Great Ocean Road between 2016 - 2017? 5.1 million
- How much money did tourists spend between 2016 – 2017 whilst visiting the Great Ocean Road? \$1.2 billion

### Steps

1. Decide the format in which you would like to use the above facts. Given that precise answers for the above questions would be difficult, the above facts can be used in a quiz format such as described in the next steps or used in other formats such as a Kahoot.
2. For the quiz format, break your class up into groups of 3-4. Organise a method of recording their responses. Explain the rules of the quiz - a question will be read out, which the group discusses and records their answer. At the end of each question each group reveals their answer. Each correct response receives 1 point. For answers requiring a numerical response, the group with the closest answer receives the point.
3. Using the responses from the quiz as a stimulus, discuss the importance of the coastal environment in Australia. Points such as the following could be raised
  - The size and diversity of Australia's coastline
  - The importance of coasts in Australia's culture
  - The importance of coasts to ATSI
  - The environmental significance of Australia's coasts
  - The economic importance of Australia's coasts, not only for the tourism industry but for other industries such as transport and fishing
  - The number of Australians living nearby and using the coast

4. Get students to create an infographic about the importance of coasts in Australia. It is suggested that the students concentrate on one facet of the above, such as importance to our culture, contribution to tourism or environmental importance of our coast. Begin by showing samples of an infographic. The steps required to create an infographic can be found at sites such as

<https://infogram.com/blog/make-infographic-10-step-guide/>

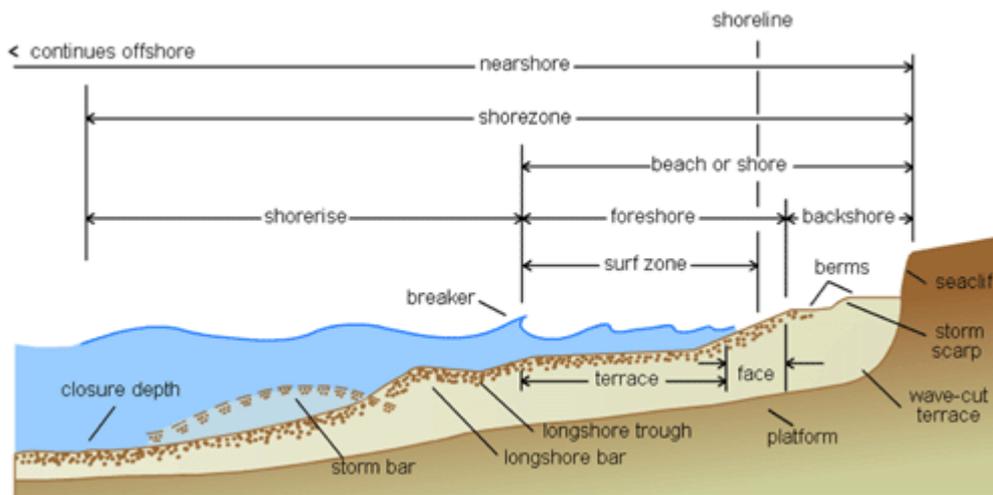
The infographics could be presented or displayed in the classroom. Alternatively consider other modes of presentation, such as storybook

### Extension Activities

The above activities provide a good lead into/discussion about key background coastal terminology such as.

- Definition of the coast.
- How the coast is a natural system
- The different types of coastlines.
- The components of a beach, as shown in the diagram below. Knowledge of this terminology is useful for fieldwork reports.

### Beach Profile



Source: [http://coastalchange.ucsd.edu/st3\\_basics/beaches.html](http://coastalchange.ucsd.edu/st3_basics/beaches.html)