



# Curriculum

## Module 3 Ocean Care Overview

**Suitable for Lower Primary to Middle Secondary  
Core Learning Outcomes Levels 2 - 6  
Developed by: Kathleen Gordon**



In partnership with: **Queensland Government**  
Department of  
Education and the Arts



Association of Independent  
Schools of Qld



Brisbane Catholic  
Education



Qld Catholic  
Education Commission



Earth  
Charter

# OCEAN CARE – MODULE OVERVIEW

## **Core learning areas**

Studies of Society & Environment (SOSE) levels 2-6  
Science levels 2-4

## **The Brink Expedition**

In an epic test of endurance and resolve, a small team of Queenslanders, are racing against time cycling and sailing around the world in just 1000 days, travelling through harsh and unforgiving terrain. The Brink Expedition began in May 2003 and is scheduled to finish in Sydney Harbour on Australia Day 2006. Apart from the adventure of the Expedition, the team has been spurred on by a passionate determination to educate the world's next generation about the environment.

## **The Earth Charter**

The Earth Charter provides the background and the decision making filter for the Brink Expedition. The Earth Charter is a document based on values similar to those articulated by the SOSE syllabus. Together with the Brink Expedition, the Earth Charter constitutes a relevant and multilayered opportunity for students to challenge and form their own ideas of democratic process, social justice, ecological and economic sustainability and peace.

## **Rationale**

The Brink Expedition provides a remarkable example of social and environmental action. It can be used to encourage students' active participation in addressing social and environmental issues. The Expedition's voyage across the Atlantic Ocean is intended to draw our attention to some of the issues affecting our oceans today including over fishing and by-catch, ocean pollution and the impact of coastal development on marine habitats such as coral reefs. This module provides opportunities for students to learn about the importance of oceans to life on Earth and the ways we are impacting negatively on the health of oceans. The module also challenges students to consider the ways they contribute to these negative impacts and then take action to address them.

## **Keeping in touch with the Brink Team**

Over the next two and a half years you can keep in touch with the Brink team through the Brink Expedition website at [www.brinkx.org](http://www.brinkx.org). Using the website, you and your students can read updates of the team's journal, email the team or link with the Brink School room and register for "epals" or pen pals along the Brink route. The website also contains information about the places visited by the team.

## **Module outline and focus questions**

The module is multi-level in design and caters for students from early primary through to middle secondary school. The module has four parts. The first part is not leveled and provides a general introduction to the Expedition. Parts 2-4 provide leveled focus questions and outcomes. These are grouped as levels 1&2, levels 3&4 and levels 5&6. Many activities span a range of levels with variations to accommodate different conceptual and literacy levels in order to address individual differences in learning groups.

The four parts are:

- Sailing on the Brink: The expeditions ocean voyages
- Ocean Planet: The need for ocean literacy
- The State of our Oceans: What have we done?
- Fishing in Troubled Waters: A call for action

A brief description of each section is provided on the following pages. Each section has a range of teaching and learning activities designed with Queensland SOSE and Science outcomes in mind. A brief description of a possible rich task, associated with part 4, is provided in that section.

### **Part 1: Sailing on the Brink: The expedition's ocean voyages**

**Follow the progress of the Brink expedition team as they sail across oceans.**

This section is designed to be used as an introduction to the Brink Expedition. It can be used effectively in two different ways. Firstly, it can be used at the beginning of this unit to motivate adolescents who may not be interested in studying the ocean. Young men embarking on an extreme adventure is likely to engage even the usually disinterested student. Secondly this section could be introduced during section three as students uncover the impacts people are having on the health of oceans. Then the expedition can be presented as an example of people working for positive change and students can discover, along with the team, the issues and ways to address them. If students have been following the team on earlier legs of their expedition you may want to skip all or some of this section.

There are three components to this section.

1. An introduction to the Brinkx website
2. A look at the logistics of planning the expedition
3. Using mapping skills to follow the progress of the expeditioners

All components can be applied to levels 1-6, with the complexity being adjusted accordingly. If teachers want to assess work in this section it is suggested that parts one and two draw on outcomes from the English syllabus (text types – websites, email, journals and interview). In part three mapping activities can be designed and assessed using outcomes from the SOSE syllabus (Place & Space 2.4, 3.4, 4.4, 5.4).

<b>Component</b>	<b>Suggested teaching and learning activities</b>	<b>Resource sheets</b>
Introduction to the Brink website	Taking a tour of the website Sending the team an email Reading their journals	A website quiz How to send an email Journal reflections
Planning an expedition	Planning for a sailing adventure Reading an interview with the team	
Mapping the journey	Following the voyage in the classroom	A map of the route

## **Part 2: Ocean Planet: The need for ocean literacy**

**Discover amazing things about Earth’s oceans and how important they are to life on our planet.**

### **LEVELS 1 & 2**

**Focus question:**

What do we know about ocean life?

**Outcome:**

Life & Living 2.3 Students make links between different features of the environment and the specific needs of living things

### **LEVELS 3 & 4**

**Focus questions:**

What do we know about oceans?

How are living things in oceans connected?

**Outcomes:**

Place and Space 3.4 Students use maps to identify coastal and land features, countries and continents and climatic zones

Place and Space 4.4 Students use latitude, longitude, compass and scale references and thematic maps to make inferences about global patterns

Life and Living 3.3 Students make links between different features of the environment and the specific needs of living things

Life and Living 4.3 Students describe some interactions (including feeding relationships) between living things and between living and non-living parts of the environment

### **LEVELS 5 & 6**

**Focus question:**

Why are oceans so important to life on Earth?

**Outcome:**

Place & Space 5.4 Students use maps, diagrams and statistics to justify placing value on environments in Australia and the Asia-Pacific region

<b>Stage of inquiry</b>	<b>Activity/strategy</b>	<b>Levels</b>	<b>Resource sheets</b>
Tuning in	Reading ocean stories Looking into mystery boxes	1-6 1-6	
Preparing to find out	Mapping what you know Introducing planet ocean Asking questions	1-6 1-6 1-6	Planet Ocean facts
Finding out	Discovering who eats who  Discovering where animals live Mapping the ocean planet  Introducing The Global 200	1-6  1-6 3-6  5-6	Marine food chain and web Estuarine food web cards 1 & 2 Ocean energy cards Marine environments 1, 2 & 3 World ocean map  Brinkx marine ecoregion hotspots
Sorting out	Playing an ocean quiz Preparing a report	1-6 1-6	Sample retrieval chart Sample report assessment
Going further	Inviting classroom visitors	1-6	
Making connections	Sharing data with another school	3-6	
Taking action			
Reflecting	Starting a reflection log	1-6	Sample reflection log

### **Part 3: The State Of Our Oceans: What have we done?**

**Examine the human activities that have an impact on the health of our oceans.**

#### **LEVELS 1 & 2**

##### **Focus question:**

How do people use the ocean?

##### **Outcomes:**

Place & Space 2.2 Students predict possible consequences for an ecological system when an element is affected

Earth & Beyond 2.3 Students discuss how their community uses resources and features of the Earth and sky

#### **LEVELS 3 & 4**

##### **Focus questions:**

How are people connected to oceans?

How do human activities affect the health of oceans?

##### **Outcomes:**

Place & Space 3.1 Students compare how diverse groups have used and managed natural resources in different environments

Place & Space 4.2 Students predict the impact of changes on environments by comparing evidence

Earth & Beyond 3.3 Students collect information that describe ways in which living things use the Earth and the sun as resources

Earth & Beyond 4.3 Students summarise information to compare ways in which different communities use resources from the Earth and Beyond

#### **LEVELS 5 & 6**

##### **Focus question:**

How do human activities affect the health of oceans?

##### **Outcome:**

Place & Space 5.4 Students use maps, diagrams and statistics to justify placing value on environments in Australia and the Asia-Pacific region

<b>Stage of inquiry</b>	<b>Activity/strategy</b>	<b>Levels</b>	<b>Resource sheets</b>
Tuning in	Using picture books	1-6	
Preparing to find out	Concept mapping Asking questions	1-6 1-6	Types of questions 1-2
Finding out	Making contact with organisations Using visual texts Looking at threats Revisiting Global 200	3-6 1-6 3-6 5-6	State of the ocean slips 1-4 Brink hotspots 1-2
Sorting out	Sorting pictures of human activities Consequences of human activities	1-2 3-6	Human activity pictures Sample consequence wheel
Going further			
Making connections			
Taking action			
Reflecting	Reflecting on your understanding	1-6	

## **Part 4: Fishing in Troubled Waters: A call for action**

**Examine the sustainability of our fisheries and work out what you can do to help.**

### **LEVELS 1 & 2**

#### **Focus question:**

How can we use what we need without hurting the ocean?

#### **Outcome:**

Systems Resources & Power 2.2 Students create a representation of various people and resources involved in the production and consumption of familiar goods and services

### **LEVELS 3 & 4**

#### **Focus question:**

How do human activities affect the health of oceans?

#### **Outcomes:**

Place & Space: 3.2 Students create and undertake plans that aim to influence decisions about an element of a place

Place & Space: 4.1 Students make justifiable links between ecological and economic factors and the production and consumption of a familiar resource

Systems Resources & Power 3.2 Students create a representation of occupational specialisation and interdependence in an industry from the past, present or future

Systems Resources & Power 4.1 Students outline how Australian industries link to global economic and ecological systems

### **LEVELS 5 & 6**

#### **Focus question:**

How can we use the oceans' resources sustainably?

#### **Outcomes:**

Place & Space 5.2 Students design strategies for evaluating environmental impacts of a proposed project, highlighting relationships within and between natural systems

Place & Space 6.2 Students create proposals to resolve environmental issues in the Asia-Pacific region

Systems Resources & Power 5.2 Students evaluate a relationship between an ecological system and a government and/or an economic system

<b>Stage of inquiry</b>	<b>Activity/strategy</b>	<b>Levels</b>	<b>Resource sheets</b>
Tuning in			
Preparing to find out	Discovering what you know about the fish on your plate?	1-6	
Finding out and Sorting out	Finding out where our seafood comes from Looking at fishing in Australia	1-6 1-6	Flowchart graphics Impacts of fishing methods Development impact matrix
Going further	Undertaking an individual research project	5-6	Planning your research 1-2
Making connections	Making a personal connection	1-6	
Taking action	Taking consumer action Campaigning for change	1-6 3-6	How to organise a campaign
Reflecting	Completing your reflection logs	1-6	