



**Brink**

**expedition**

**www.brinkx.org**

*Survive the race  
against time!*



# Curriculum

Module 4

Global Warming

Introduction

Suitable for Upper Primary

Core Learning Outcomes Levels 3-4

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In partnership with: Department of Education and the Arts



Association of Independent Schools of Qld



Brisbane Catholic Education



Qld Catholic Education Commission



Earth Charter

# GLOBAL WARMING – INTRODUCTION - MODULE OVERVIEW

## **Core learning areas**

Studies of Society & Environment (SOSE) levels 3-4  
Science levels 3-4

## **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 1000days, travelling through harsh and unforgiving terrain, relying on human power and non-fossil fuel energies on their expedition. The Brink Expedition began in May 2003 and is scheduled to finish in Sydney Harbour during 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. This module complements the actual journey of the Brink Expedition around the globe. Like the other Brink modules, "Global Warming" focuses on one of the 'hot spots' visited by the team. The team's progress across land and ocean is unpredictable, particularly because the members are determined to travel using natural sources of energy. So the Brink team cannot guarantee that they will arrive in a particular 'hot spot' at a specified time. This introduces an element of uncertainty for you and your students. The Brink team hopes that you can work with this uncertainty. It could mean that your students will study this module before the team arrives in Europe for the "Global Warming" 'hot spot'. It could mean that the team will have already left Europe before your students begin their study. Hopefully, however, your students will be studying the 'hotspot' while the team is there. Whatever the case, you'll see that the module writers have suggested ways that your students can make links with the Brink Expedition – its aims, its history, its actual travel program and its achievements. You might like also to use the 'uncertainty' positively – drawing attention to the fact that the uncertainty springs from the team's commitment to sustainable modes of travel, from the challenges of travelling through some difficult terrain and some tumultuous societies, and from the way the team members have seized unexpected opportunities for rich experiences. All of these have made a neat itinerary impossible!

## **The Earth Charter**

The Earth Charter provides the background and the decision making filter for the Brink Expedition. The values and principles of the Earth Charter, together with the Brink Expedition, constitute a relevant and multi-layered opportunity for students to challenge and form their own ideas of democratic process, social justice, ecological and economic sustainability and peace.

## **Rationale**

Many people believe that global warming is the greatest threat to the future of life on Earth. In this module, students will investigate global warming, refine their knowledge of and value positions in relation to it, think about individual and collective responses to the problem, and choose a way to advocate their position to a selected audience. They will realise that global warming is linked to the bigger picture of the sustainability of environments essential for life.

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

Until 2006 you can keep in touch with the Brink Expedition 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, visit the Web Forum or link with the Brink Schoolroom and register for "epals" or pen pals along the Brink route. The website also contains information about the places visited by the team. The team will be in Europe in early 2005 to highlight the issue of global warming.

## Focus questions

1. What is global warming?
2. What if global warming exists?
3. Should we be concerned about energy use anyway?
4. How can we reduce our impact on the Earth?

## Outcomes and Assessment

Science Strand	Science Outcomes	Activities that provide opportunities for students to demonstrate outcomes
<b>Science &amp; Society</b>	3.3 Students make predictions about the immediate impact of some applications of science on their community and environment, and consider possible pollution and public health effects.	Reducing energy usage and greenhouse emissions
	4.3 Students present analyses of the short- and long-term effects of some of the ways in which science is used.	Examining the consequences of global warming
<b>Energy &amp; Change</b>	3.3 Students identify different ways of obtaining energy.	Looking at energy sources
	4.3 Students present alternative ways of obtaining energy (including energy from the sun and from fossil fuels) for particular purposes.	Looking at energy sources
SOSE Strand	SOSE Outcomes	Activities that provide opportunities for students to demonstrate outcomes
<b>Place &amp; Space</b>	3.2 Students create and undertake plans that aim to influence decisions about elements of a place.	Reducing energy usage and greenhouse emissions
	4.2 Students predict the impact of changes on environments by using comparative evidence.	Examining the consequences of global warming
	3.5 Students describe the values underlying personal and other people's actions regarding familiar places.	Exploring the debate
	4.5 Students explain whether personal, family and school decisions about resource use and management balance local and global considerations.	Reducing energy usage and greenhouse emissions
<b>Systems Resources &amp; Power</b>	3.1 Students make inferences about interactions between people and natural cycles, including the water cycle.	Looking at changes to the natural greenhouse effect
<b>Time Continuity &amp; Change</b>	3.4 Students organise information about causes and effects of specific historical events.	Examining the consequences of global warming
	4.4 Students critique information sources to show positive and negative effects of a change or continuity of different groups.	Examining the consequences of global warming

## Module overview

### Introduction: Following the Brink Expedition

Component	Suggested teaching and learning activities	Resource sheets
Introduction to the Brink website	A tour of the website Reading their Journals Posting questions on the Web Forum	A website guide Journal reflections
Planning an expedition	Planning for the adventure	
Mapping the journey	Following the journey in the classroom	A map of the route

### Investigation: Global warming

Stage of inquiry	Focus question	Teaching and learning activities	Resources
Tuning in Preparing to find out	What is global warming?	Using photos From South America to Europe Asking questions Deciding what to investigate Linking to outcomes Keeping a journal	<i>Websites listed throughout the text</i>
Finding out Sorting out	What if global warming exists?	Finding out about the greenhouse effect Creating a greenhouse flowchart Looking at changes to the natural greenhouse effect  Examining the consequences of global warming Exploring the debate	Resource 1: Global warming and climate change  <i>Websites listed throughout the text</i>  Resource 2: Consequence chart
Going further Making connections	Should we be concerned about energy use anyway?	Looking at energy sources Examining energy use	Resource 3: The ways we use energy  <i>Websites listed throughout the text</i>
Taking action Reflecting	How can we reduce our impact on the Earth?	Reducing energy usage and greenhouse emissions  Reflecting on thinking and doing	Resource 4: Project planning guide Resource 5: Using energy resources more wisely  <i>Websites listed throughout the text</i>

# Introduction: Following the Brink Expedition

## Follow the progress of the Brink Expedition Team as they travel around the world

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 global issues. Young men embarking on an extreme adventure is likely to engage even the usually disinterested student. Secondly this section could be introduced during the unit as students uncover the impacts people are having on the health of the planet and its people. 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 Brink website
2. A look at the logistics of planning the expedition
3. Using mapping skills to follow the progress of the expeditioners

Each component can be used with students working at various levels, with the complexity being adjusted accordingly. If teachers want to assess work in this section it is suggested that outcomes from the English syllabus (relating to text types – websites, email, journals and interview) be used in components one and two. In component three mapping activities can be designed and assessed using outcomes from the SOSE syllabus (Place & Space 2.4, 3.4, 4.4, 5.4).

Component	Suggested teaching and learning activities	Resource sheets
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## LINKS

Brink

Expedition

[www.brinkx.org](http://www.brinkx.org)

## TEACHING AND LEARNING ACTIVITIES

### A TOUR OF THE WEBSITE

Students take a tour of the Brink website.

- Prepare for this activity by taking a tour of the website [www.brinkx.org](http://www.brinkx.org) yourself. Put the website address in the favourites folder of your classroom and/or library resource centre computers. If you don't have uninterrupted Internet access, download the site.
- Provide students, perhaps working in pairs, with a copy of *Resource sheet: A website guide* and give them the time to complete it. This could be given as a homework task if students have Internet access at home.
- When students have completed the task, facilitate a class discussion about the things that students found out for the task, additional things that students discovered, items of interest regarding the site design, site content and purpose of the expedition. This site exploration may have raised some questions that can be recorded either individually or on a class list to follow up later.

### READING THEIR JOURNALS

Students access the expeditioners' journals.

- The *Resource sheet: Journal reflections* is divided into two parts. Part A uses a journal entry from the schoolroom. Schoolroom journal entries are shorter and use simpler language than regular journal entries making them suitable for primary school students or secondary students with lower literacy levels. Part B uses regular journal entries. Choose the section/s appropriate to the needs of your students. Provide them with a copy of the resource sheet and invite them to complete the task.

### POSTING QUESTIONS ON THE WEB FORUM

Students develop interview questions for the Brink expeditioners.

- Facilitate a think, pair, share process by asking students to think about a question/s they would like to ask the expedition team. (Encourage students to ask the expeditioners questions relating to their ideas about and experiences of travelling using non fossil-fuelled means AND their impressions of the places they visit and people they meet particularly in terms of the issue they are highlighting – in this case global warming.)
- Then ask students to discuss their question/s with a partner and write down two of those questions. Invite pairs to share one of their questions with the whole group and record these questions on a group list that everyone can see.
- When each pair has submitted a question ask pairs if they would like to add another question that isn't already listed or organise/revise the list in some way. (This may involve combining/deleting repetitive questions for example.)
- Assist students to be selective when deciding which questions they will post, as a whole group, on the Web Forum. (Let the students know that the expeditioners won't have time to post responses to lots of questions.) Read the questions that students decide upon and if appropriate ask a couple of students to post the questions for your class group on the Web Forum in the 'Message to the Brink Boys' category. (As students undertake work on the unit invite them to post what they are doing in the 'Student Speak' category. There is also a 'Teacher Chat' category you may wish to access.)

## PLANNING FOR THE ADVENTURE

Students consider how to prepare for an expedition.

- Facilitate a class discussion about what students think they would need to do to prepare for a cross country expedition on a bicycle. This activity can be done at many levels, with responses ranging from simplistic to sophisticated, depending on students' experiences and developmental level.
- Invite students, working in pairs, to list the things they'd need to consider, including a list of things they'd need to take. With younger students draw on their experience of going camping or out for the day/overnight where there are no shops to buy things. Older students may wish to build on their initial ideas by researching well known cross country expeditions.
- Invite students to go to the Fact Files on the Brink website and read an account by one of the Brink team members, Kendon Glass, entitled "A full kit list". (The reading level is suitable for readers from middle primary to secondary level.)

## FOLLOWING THE JOURNEY IN THE CLASSROOM

Students plot the expeditioners' journey on a map.

- Using the National Geographic map, you received when you signed up to the Brink Expedition, plot the journey using references from the team's journals. As you read a journal entry, ask students to locate places on the map and track the journey using coloured pins and wool or dot stickers (if the map is laminated).
- Another source of route information is the Race against time page on the Brink website. Check there for a description of the proposed route. Does the team deviate from the plan? You'll have to check the website to find out.
- For individual maps for student plotting use *Resource sheet: A map of the route*.
- Find out about the places along the route. There are many travel websites including:
  - <http://www.timeanddate.com> shows the time, date, sunrise and sunset, latitude and longitude and telephone dialling codes of places all around the world. It even includes a small world map to indicate location.

## Resource sheet: A website guide



Go to [www.brinkx.org](http://www.brinkx.org) . Scan the home page, known as Base Camp, and answer the following questions:

1. What does the word brink mean?

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2. Go to Latest News. Find the section that shows where the Brink Boys are now, click on 'HERE' and name the country they are in. What is the capital of that country? Use your atlas to work out how far this city is from Sydney, Australia.

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3. Click on Back and return to Base Camp.

4. Click on Gallery on the left hand side of the page. View the photos in one of the photo files by clicking on one of the four photos or the name of the country beneath them. Describe one of the photos that you like.

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5. Click on Back and then click on the red and white cross in the top right hand corner of the page to close these pages and return to Base Camp.

6. Locate and click on Fact Files on the left hand side of the page. Locate the Topic box and select National Parks. On the Country box and select any country. Go to Sort and select latest date.

a) What is the name of the national park in Chile that was visited by the Brink team?

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b) Click on the link. List six animals that are found in the national park.

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## Resource sheet: Journal reflections



### Directions

#### Part A

1. Go to [www.brinkx.org](http://www.brinkx.org) .
2. Locate and click on Journals on the left hand side of the home page.
3. Locate the Topic box and select Schoolroom journals.
4. Locate the Country box and select Any country then click on Go.
5. Click on San Flaviano Schoolroom and answer the following questions:
  - a) Read what he has written about this community and choose two things that you think are interesting and list them here.

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- b) How can people in Australia help children living in the San Flaviano community?

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### Directions

#### Part B

1. Go to [www.brinkx.org](http://www.brinkx.org) .
2. Locate and click on Journals on the left hand side of the home page.
3. Locate the Topic box and select Interviews.
4. Locate the Country box and select Australia then click on Find. Why did Kendon and Ben decide to undertake this expedition?

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5. Go back to the topic box and select Any topic. In the Country box select Spain.
6. Locate the item entitled 'Hitting the frog and toad' and answer the following questions:
  - a) Summarise Kendon's impressions of the dock area where he stayed in Gibraltar.

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# Resource sheet: A map of the route



