



# Curriculum

Module 7

Endangered Species

Module Overview

Middle Years of Schooling (Years 6 – 9)

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Queensland Government  
Education Queensland



Independent Schools  
Queensland



Earth Charter  
Australia



Brisbane Catholic  
Education



Queensland Catholic  
Education Commission

## **ENDANGERED SPECIES – MODULE OVERVIEW**

### **Rationale**

Brink Adventures brings attention to South East Asia as a hot spot where many fragile ecosystems are under threat of irreparable damage, with a number of species of flora and fauna facing extinction. This module encourages students to actively investigate the relationships between human and natural environments and to use this knowledge in order to devise a range of ways to respond to a given situation. As a consequence students will be given the opportunity to plan and enact strategies that respond appropriately to the hot spot issue of endangered species. Brink Adventures provides an authentic context for investigation and action as the expedition races against time.

### **Brink Adventures**

In an epic test of endurance and resolve, the Brink Adventurers race against the seasons through some of the most difficult terrain and extreme weather on the planet, all the time attempting to use only human power and the natural elements. Brink Adventures is spurred on by a passionate determination to share 'real world' global experiences with the world's next generation. Teachers may choose to highlight the uncertainty surrounding Brink Adventures - drawing attention to the fact that in spite of the challenges of travelling through not only some of the planet's most difficult territories but also some of the world's most tumultuous societies, the Brink Adventurers have seized unexpected opportunities for rich experiences.

### **The Earth Charter**

The Earth Charter provides the background and the decision making filter for Brink Adventures. The values and principles of the Earth Charter 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. In particular, this module contributes to the understanding that the protection of Earth's vitality, diversity and beauty is a sacred trust. Being true to this sacred trust can require specific and concerted action to promote the recovery of endangered species and ecosystems.

### **Keeping in touch with Brink Adventures**

Schools can keep in touch with Brink Adventures through their website at [www.brinkadventures.org](http://www.brinkadventures.org). Using the website, teachers and students can read updates of the team's journal or join the Brink Adventures Schoolroom and register for "epals" or pen pals along the expedition route. The website also contains information about the places visited by the team.

## Module outline, focus questions and design challenge

*Endangered Species* is a multi-level module that caters for students in the Middle Phase of Learning (Years 6 – 9). Many of the activities span a range of levels with variations to accommodate different conceptual levels and literacy levels in order to address individual differences in learning groups. The main focus of the module is to provide students with an opportunity to acquire knowledge about endangered species and the threats to their survival. As they engage with the various learning experiences in the module, students will reflect on the concepts raised, ultimately presenting their responses to the issues in a campaign to empower other to take action to reduce the threats faced by endangered species.

As an orientation to this module it is suggested that students could be engaged in a range of learning experiences to introduce them to Brink Adventures. Depending on the learning context, teachers may need to make minor modifications.

There are three components to this section:

1. An introduction to the Brink Adventures website <http://www.brinkadventures.org/default.asp>
2. A look at the logistics of planning the expedition
3. Using mapping skills to follow the progress of the adventurers

All components can be addressed with students from Years 6-9, with the complexity being adjusted accordingly. If teachers choose to assess work in this section it is suggested that parts one and two draw on aspects of English, especially text types – websites, email, journals and interviews. In section three, mapping activities can be designed and assessed using aspects of Studies of Society and Environment.

Component	Suggested teaching and learning activities	Resource sheets
Introduction to the Brink Adventures website	<ul style="list-style-type: none"><li>• Taking a tour of the website</li><li>• Sending the team an email</li><li>• Reading their journals</li></ul>	<ul style="list-style-type: none"><li>• A website quiz</li><li>• How to send an email</li><li>• Journal reflections</li></ul>
Planning an expedition	<ul style="list-style-type: none"><li>• Planning for adventure</li><li>• Reading an interview with the team</li></ul>	
Mapping the journey	<ul style="list-style-type: none"><li>• Following the expedition in the classroom</li></ul>	<ul style="list-style-type: none"><li>• A map of the route</li></ul>

## Endangered Species

As the team from Brink Adventures journey through South East Asia, this module will focus on the threats to species throughout the region and the possibilities for protecting such species. The logo for Brink Adventures is none other than Australia's most famous of extinct species - the Thylacine, or Tasmanian tiger. Use of an extinct species as a logo serves as a reminder that time can be of the essence and action must be taken before there can be no recovery.

Focus Questions include:

- What causes some species to become extinct?
- Why should the endangerment or extinction of species concern us?

## Essential Learnings

### SOSE

#### YEAR 7 JUNCTURE – PLACE AND SPACE

Environments are defined by physical characteristics and processes, and are connected to human activities and decisions about resource management.

- Natural hazards are a result of natural processes, and human activity can affect the impacts of these occurrences. For example, cyclones are a common occurrence in Queensland and increased coastal development has intensified their impact.
- Sustainability requires a balance between using, conserving and protecting environments, and involves decisions about how resources are used and managed. For example, “rethink, reduce, reuse and recycle”; renewable versus non-renewable energy sources.
- Distribution maps, climate zone maps and weather maps have specific features to convey information, including latitude, longitude, eight compass points, scale and distance, a legend and shading and/or symbols.

#### YEAR 9 JUNCTURE – PLACE AND SPACE

Environments are defined by spatial patterns, human and physical interactions, and sustainable practices can balance human activity and environmental processes.

- Interrelationships between human activity and environments result in particular patterns of land and resource use, and can cause environmental problems. For example, overgrazing and erosion; overuse of fossil fuels and carbon dioxide emissions.
- Governments and communities need to balance economic, social, political and environmental factors through sustainable development, consumption and production. For example, resource use and environmental impacts; logging and the survival of small communities dependent on that industry.

- Maps, including topographic, political and thematic maps, are developed with particular features, including scale, contour lines and human-created boundaries, and use the specific skills of observing, visualising, estimating, sketching and measuring.

## **SCIENCE**

### YEAR 7 JUNCTURE – SCIENCE AS A HUMAN ENDEAVOUR

Science impacts on people, their environment and their communities.

- Ethical considerations are involved in decisions made about applications of science. For example, preservation of wilderness environments to help protect endangered species.

### YEAR 7 JUNCTURE - LIFE AND LIVING

Living things have structures that enable them to survive and reproduce.

- Survival of organisms is dependent on their adaptation to their environment. For example, animals use camouflage to protect themselves; plants in very dry areas may store water in modified structures.
- Different feeding relationships exist within an ecosystem. For example, producer, consumer, herbivore, carnivore relationships form a food web.

### YEAR 9 JUNCTURE – SCIENCE AS A HUMAN ENDEAVOUR

Responsible and informed decisions about real-world issues are influenced by the application of scientific knowledge.

- Immediate and long-term consequences of human activity can be predicted by considering past and present events. For example, consequences of unsustainable use of fossil fuels can be seen in environmental impacts.
- Responsible, ethical and informed decisions about social priorities often require the application of scientific understanding. For example, use of alternative forms of energy; use of recycled water; development of influenza and cervical cancer vaccines.

### YEAR 9 JUNCTURE – LIFE AND LIVING

Organisms interact with their environment in order to survive and reproduce.

- In ecosystems, organisms interact with each other and their surroundings. For example, the scavenger role of the crab in the mangroves means that it has a plentiful supply of food and it contributes by cleaning its surroundings.
- Changes in ecosystems have causes and consequences that may be predicted. For example, bushfires destroy natural bushland, which temporarily changes the ecosystem; birds return to dried-up waterholes after rain.

## Module outline

The module uses a TELSTAR model of social inquiry as the planning framework for learning.

Stage of Inquiry	Activity/Strategy	Juncture	Resources Sheets
<b>Tune-In</b>	<ul style="list-style-type: none"> <li>• Making choices and understanding the consequences</li> <li>• Is extinction a necessary outcome of being endangered?</li> </ul>	<p>Years 6-7</p> <p>Years 6-7</p>	<ul style="list-style-type: none"> <li>• Rosie's alternatives</li> <li>• Endangered species reflection log</li> <li>• Endangered species timeline</li> <li>• Endangered species reflection log on thylacine</li> </ul>
<b>Explore</b>	<ul style="list-style-type: none"> <li>• Maximising our responses</li> <li>• Do endangered species exist in South East Asia?</li> </ul>	<p>Years 6-9</p> <p>Years 6-9</p>	<ul style="list-style-type: none"> <li>• Endangered species essential elements</li> <li>• South East Asia map</li> <li>• Do endangered species exist in South East Asia?</li> </ul>
<b>Look and sort</b>	<ul style="list-style-type: none"> <li>• Cause and effect</li> <li>• What's my choice?</li> </ul>	<p>Years 6-9</p> <p>Years 6-9</p>	<ul style="list-style-type: none"> <li>• Major types of threats faced by any species</li> <li>• What happens when ...?</li> <li>• Reflection log</li> </ul>
<b>Test and Act</b>	<ul style="list-style-type: none"> <li>• In my area</li> </ul>	Years 6-9	
<b>Reflect</b>	<ul style="list-style-type: none"> <li>• What's next?</li> </ul>	Years 7-9	<ul style="list-style-type: none"> <li>• Final reflection log</li> </ul>