

Outdoor and Environmental Studies

Victorian Certificate of Education Study Design

COVER ARTWORK WAS SELECTED FROM THE TOP ARTS EXHIBITION. COPYRIGHT REMAINS THE PROPERTY OF THE ARTIST.



Latoya BARTON
The sunset (detail)
from a series of twenty-four
9.0 x 9.0 cm each, oil on board



Tarkan ERTURK
Visage (detail)
201.0 x 170.0 cm
synthetic polymer paint, on cotton duck



Liana RASCHILLA
Teapot from the *Crazy Alice* set
19.0 x 22.0 x 22.0 cm
earthenware, clear glaze, lustres



Nigel BROWN
Untitled physics (detail)
90.0 x 440.0 x 70.0 cm
composition board, steel, loudspeakers,
CD player, amplifier, glass



Kate WOOLLEY
Sarah (detail)
76.0 x 101.5 cm, oil on canvas



Chris ELLIS
Tranquility (detail)
35.0 x 22.5 cm
gelatin silver photograph



Christian HART
Within without (detail)
digital film, 6 minutes



Kristian LUCAS
Me, myself, I and you (detail)
56.0 x 102.0 cm
oil on canvas



Merryn ALLEN
Japanese illusions (detail)
centre back: 74.0 cm, waist (flat): 42.0 cm
polyester cotton



Ping (Irene) VINCENT
Boxes (detail)
colour photograph



James ATKINS
Light cascades (detail)
three works, 32.0 x 32.0 x 5.0 cm each
glass, fluorescent light, metal



Tim JOINER
14 seconds (detail)
digital film, 1.30 minutes



Lucy McNAMARA
Precariously (detail)
156.0 x 61.0 x 61.0 cm
painted wood, oil paint, egg shells, glue, stainless steel wire

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Contents

5	Important information
7	Introduction
	Scope of study
	Rationale
8	Aims
	Structure
	Entry
	Duration
9	Changes to the study design
	Monitoring for quality
	Safety and wellbeing
	Use of information and communications technology
	Employability skills
	Legislative compliance
10	Assessment and reporting
	Satisfactory completion
	Authentication
	Levels of achievement
12	Unit 1: Exploring outdoor experiences
	Areas of study and Outcomes
14	Assessment
15	Unit 2: Discovering outdoor environments
	Areas of study and Outcomes
17	Assessment
18	Unit 3: Relationships with outdoor environments
	Areas of study and Outcomes
20	Assessment
22	Unit 4: Sustainable outdoor relationships
	Areas of study and Outcomes
25	Assessment
27	Advice for teachers
	Victorian Essential Learning Standards (VELS)
28	Employability skills
29	Developing a course
31	Glossary
32	Suitable resources
	Learning activities

IMPORTANT INFORMATION

Accreditation period

Units 1–4: 2012–2016

The accreditation period commences on 1 January 2012.

Other sources of information

The *VCAA Bulletin VCE, VCAL and VET* is the only official source of changes to regulations and accredited studies. The *VCAA Bulletin VCE, VCAL and VET*, including supplements, also regularly includes advice on VCE studies. It is the responsibility of each VCE teacher to refer to each issue of the *VCAA Bulletin VCE, VCAL and VET*. The *VCAA Bulletin VCE, VCAL and VET* is sent in hard copy to all VCE providers. It is also available as an e-newsletter via free subscription on the Victorian Curriculum and Assessment Authority's website at <www.vcaa.vic.edu.au>.

To assist teachers in assessing School-assessed Coursework in Units 3 and 4, the Victorian Curriculum and Assessment Authority publishes online an assessment handbook that includes advice on the assessment tasks and performance descriptors for assessment.

The companion document to the assessment handbook 'Administrative Procedures for Assessment in VCE Studies' is available on the Victorian Curriculum and Assessment Authority's website at <www.vcaa.vic.edu.au/vce/generaladvice/index.html>.

The current *VCE and VCAL Administrative Handbook* contains essential information on assessment processes and other procedures.

VCE providers

Throughout this study design the term 'school' is intended to include both schools and other VCE providers.

Photocopying

VCE schools only may photocopy parts of this study design for use by teachers.

Introduction

SCOPE OF STUDY

VCE Outdoor and Environmental Studies is concerned with the ways humans interact with and relate to outdoor environments. ‘Outdoor environments’ include environments that have minimum influence from humans, as well as those environments that have been subject to different levels of human intervention. The study enables students to make critically informed comment on questions of environmental sustainability and to understand the importance of environmental health, particularly in local contexts.

In this study both passive and active outdoor activities provide the means for students to develop experiential knowledge of outdoor environments. Such knowledge is then enhanced through the theoretical study of outdoor environments from perspectives of environmental history, ecology and the social studies of human relationships with nature. The study also examines the complex interplay between human impacts on outdoor environments and nature’s impact on humans.

Outdoor experiences suited to this study include a range of guided activities in areas such as farms, mining/logging sites, interpretation centres, coastal areas, rivers, mountains, bushland, forests, urban parks, and state or national parks. Activities undertaken could include bushwalking, cross-country skiing, canoe touring, cycle touring, conservation and restoration activities, marine exploration, and participation in community projects. Outdoor experiences that use weapons or motorised devices to replace human effort are not suitable for this study.

RATIONALE

VCE Outdoor and Environmental Studies provides students with the skills and knowledge to safely participate in activities in outdoor environments and to respect and value diverse environments. The blend of direct practical experience of outdoor environments with more theoretical ways of knowing, enables informed understanding of human relationships with nature.

Historically, humans have modified outdoor environments to meet survival, commercial, conservation and recreation needs. For many, outdoor environments have become places of adventure, relaxation, scientific study, social action and enterprise. Outdoor environments also provide space for connectedness with nature and opportunities for reflection upon the past, present and future. These varying values and approaches generate differing impacts and can cause pressures and tensions between user groups,

leading to issues concerning the preservation and sustainability of outdoor environments. Outdoor and Environmental Studies seeks to enable students to critically analyse these differing relationships, impacts and issues, providing the knowledge and skills to participate in and contribute to contemporary society.

Outdoor and Environmental Studies offers students a range of pathways, and caters to those who wish to pursue further formal study in areas where interaction with outdoor environments is central, such as natural resource management, nature-based tourism, outdoor leading and guiding, environmental research and policy, education, and agriculture.

AIMS

This study enables students to:

- develop experience-based relationships with, and knowledge of, outdoor environments
- develop an understanding of the ecological, historical, economic and social factors which have had an impact on and will influence outdoor environments over time
- develop skills, knowledge and behaviours that promote safe and sustainable interaction with outdoor environments
- identify and analyse the strategies used to protect, conserve and manage outdoor environments in a sustainable manner
- understand the implications of trends towards sustainable environmental relationships
- critically analyse interactions with outdoor environments in shaping Australian cultural practices.

STRUCTURE

The study is made up of four units.

Unit 1: Exploring outdoor experiences

Unit 2: Discovering outdoor environments

Unit 3: Relationships with outdoor environments

Unit 4: Sustainable outdoor relationships

Each unit deals with specific content contained in areas of study and is designed to enable students to achieve a set of outcomes for that unit. Each outcome is described in terms of key knowledge and key skills.

ENTRY

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Units 1 to 4 are designed to a standard equivalent to the final two years of secondary education. All VCE studies are benchmarked against comparable national and international curriculum.

DURATION

Each unit involves at least 50 hours of scheduled classroom instruction.

CHANGES TO THE STUDY DESIGN

During its period of accreditation minor changes to the study will be announced in the *VCAA Bulletin VCE, VCAL and VET*. The *VCAA Bulletin VCE, VCAL and VET* is the only source of changes to regulations and accredited studies. It is the responsibility of each VCE teacher to monitor changes or advice about VCE studies published in the *VCAA Bulletin VCE, VCAL and VET*.

MONITORING FOR QUALITY

As part of ongoing monitoring and quality assurance, the Victorian Curriculum and Assessment Authority will periodically undertake an audit of VCE Outdoor and Environmental Studies to ensure the study is being taught and assessed as accredited. The details of the audit procedures and requirements are published annually in the *VCE and VCAL Administrative Handbook*. Schools will be notified if they are required to submit material to be audited.

SAFETY AND WELLBEING

It is the responsibility of the school to ensure that duty of care is exercised in relation to the health and safety of all students undertaking the study. The implementation of effective safety management plans and processes should ensure that all activities are conducted safely. This includes ensuring that all rules and regulations for the conduct of outdoor activities are rigorously followed. Teachers should refer to the Department of Education and Early Childhood Development's *Safety Guidelines for Education Outdoors* <www.education.vic.gov.au/management/schooloperations/edoutdoors/default.htm>.

Effective safety management also includes adequate levels of training of students and staff for the particular activity and outdoor setting, and the selection of a setting that is appropriate for the capabilities of the students and staff.

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY

In designing courses for this study teachers should incorporate information and communications technology (ICT) where appropriate and applicable to the teaching and learning activities.

EMPLOYABILITY SKILLS

This study offers a number of opportunities for students to develop employability skills. The 'Advice for teachers' section provides specific examples of how students can develop employability skills during learning activities and assessment tasks.

LEGISLATIVE COMPLIANCE

When collecting and using information, the provisions of privacy and copyright legislation, such as the Victorian *Information Privacy Act 2000* and *Health Records Act 2001*, and the federal *Privacy Act 1988* and *Copyright Act 1968*, must be met.

Assessment and reporting

SATISFACTORY COMPLETION

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit. Designated assessment tasks are provided in the details for each unit. The Victorian Curriculum and Assessment Authority publishes online an assessment handbook that includes advice on the assessment tasks and performance descriptors for assessment for Units 3 and 4.

Teachers must develop courses that provide opportunities for students to demonstrate achievement of outcomes. Examples of learning activities are provided in the 'Advice for teachers' section.

Schools will report a result for each unit to the Victorian Curriculum and Assessment Authority as S (Satisfactory) or N (Not Satisfactory).

Completion of a unit will be reported on the Statement of Results issued by the Victorian Curriculum and Assessment Authority as S (Satisfactory) or N (Not Satisfactory). Schools may report additional information on levels of achievement.

AUTHENTICATION

Work related to the outcomes of each unit will be accepted only if the teacher can attest that, to the best of their knowledge, all unacknowledged work is the student's own. Teachers need to refer to the current *VCE and VCAL Administrative Handbook* for authentication procedures.

LEVELS OF ACHIEVEMENT

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision. Assessment of levels of achievement for these units will not be reported to the Victorian Curriculum and Assessment Authority. Schools may choose to report levels of achievement using grades, descriptive statements or other indicators.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4.

In VCE Outdoor and Environmental Studies students' level of achievement will be determined by School-assessed Coursework and an end-of-year examination. The Victorian Curriculum and Assessment Authority will report students' level of performance on each assessment component as a grade from A+ to E or UG (ungraded). To receive a study score, students must achieve two or more graded assessments and receive S for both Units 3 and 4. The study score is reported on a scale of 0–50; it is a measure of how well the student performed in relation to all others who took the study. Teachers should refer to the current *VCE and VCAL Administrative Handbook* for details on graded assessment and calculation of the study score. Percentage contributions to the study score in VCE Outdoor and Environmental Studies are as follows:

- Unit 3 School-assessed Coursework: 25 per cent
- Unit 4 School-assessed Coursework: 25 per cent
- End-of-year examination: 50 per cent.

Details of the assessment program are described in the sections on Units 3 and 4 in this study design.

Unit 1: Exploring outdoor experiences

This unit examines some of the ways in which humans understand and relate to nature through experiences of outdoor environments. The focus is on individuals and their personal responses to and experiences of outdoor environments.

Students are provided with the opportunity to explore the many ways in which nature is understood and perceived. Students develop a clear understanding of the range of motivations for interacting with outdoor environments and the factors that affect an individual's access to outdoor experiences and relationships with outdoor environments.

Through outdoor experiences, students develop practical skills and knowledge to help them live sustainably in outdoor environments. Students understand the links between practical experiences and theoretical investigations, gaining insight into a variety of responses to, and relationships with, nature.

AREA OF STUDY 1

Motivations for outdoor experiences

In this area of study, students examine motivations for and responses to nature and outdoor experiences. They investigate a range of contemporary uses and meanings of the term 'nature', and examine a variety of different types of outdoor environments. Students are introduced to a cultural perspective on the ways humans relate to nature. They evaluate how their personal responses are influenced by media portrayals of outdoor environments and perceptions of risk in outdoor experiences.

Students learn to plan for and engage in safe participation in outdoor experiences and develop practical skills related to minimal impact travelling and living. Students use these experiences as the basis for reflection and analysis.

Outcome 1

On completion of this unit the student should be able to describe motivations for participation in and personal responses to outdoor environments, with reference to specific outdoor experiences.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 1.

Key knowledge

- the use and meanings of relevant terms, including nature, outdoor environments, wilderness, managed parks and urban/built environments
- types of outdoor environments, including wilderness, managed parks, and urban/built environments
- the range of motivations for seeking outdoor experiences
- the range of differing personal responses to outdoor environments, such as fear, appreciation, awe and contemplation
- the influence of media portrayals on personal responses to outdoor environments
- the variety of personal responses to risk in outdoor experiences, including the interplay between competence, perceived risk and real risk
- strategies for planning for safe and sustainable interactions with outdoor environments.

Key skills

- plan for and reflect upon a range of practical outdoor experiences and analyse relevant information collected during these experiences
- define and describe a range of relevant terms
- analyse motivations for seeking outdoor experiences
- describe and analyse a range of personal responses to outdoor environments and outdoor experiences
- plan for and use appropriate skills for safe and sustainable interactions with outdoor environments.

AREA OF STUDY 2**Experiencing outdoor environments**

This area of study broadens the focus of students from personal responses to the ways in which others respond to, understand and value outdoor experiences and outdoor environments. Through investigations of specific outdoor environments, students analyse different ways of experiencing and knowing outdoor environments.

Practical outdoor experiences provide students with the opportunity to observe and experience various ways of encountering and understanding nature. Students consider factors that affect access to outdoor experiences, and describe the effect of different technologies on outdoor experiences, examining how all of these influence the ways humans understand nature.

Outcome 2

On completion of this unit the student should be able to describe ways of knowing and experiencing outdoor environments and evaluate factors that influence outdoor experiences, with reference to specific outdoor experiences.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2.

Key knowledge

- the variety of ways in which people experience and respond to outdoor environments, for example as a resource, for recreation, for adventure, for spiritual connection, and as a study site
- the different ways of knowing outdoor environments, including through experiential knowledge, environmental and natural history, and ecological, social and economic perspectives
- the factors that affect access to and kinds of outdoor experiences, including socioeconomic status, cultural background, age, gender and physical ability
- relevant technologies and their effects on outdoor experiences.

Key skills

- plan for and reflect upon a range of practical sustainable outdoor experiences and analyse relevant information collected during these experiences
- compare and contrast ways in which outdoor environments can be experienced and responded to, by reflecting on both personal experiences and the experiences of other people
- describe different ways of knowing outdoor environments from a variety of perspectives
- evaluate factors that affect access to outdoor experiences
- evaluate the effects of relevant technologies on outdoor experiences.

ASSESSMENT

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's overall performance on assessment tasks designated for the unit.

The key knowledge and key skills listed for each outcome should be used as a guide to course design and the development of learning activities. The key knowledge and key skills do not constitute a checklist and such an approach is not necessary or desirable for determining the achievement of outcomes. The elements of key knowledge and key skills should not be assessed separately.

Assessment tasks must be a part of the regular teaching and learning program and must not unduly add to the workload associated with that program. They must be completed mainly in class and within a limited timeframe. Teachers should select a variety of assessment tasks for their assessment program to reflect the key knowledge and key skills being assessed and to provide for different learning styles.

For this unit students are required to demonstrate achievement of two outcomes. As a set these outcomes encompass both areas of study.

Demonstration of achievement of Outcomes 1 and 2 must be based on the student's performance on a selection of assessment tasks. Where teachers allow students to choose between tasks they must ensure that the tasks they set are of comparable scope and demand.

Assessment tasks for this unit are selected from the following:

- a journal/report of outdoor experiences
- a case study analysis
- oral presentations
- practical reports in a non-text format such as multimedia, audio podcasts, annotated visual display
- data analysis
- tests
- written responses, including essays, short answers, weblogs, web discussion forums.

Unit 2: Discovering outdoor environments

This unit focuses on the characteristics of outdoor environments and different ways of understanding them, as well as the human impacts on outdoor environments.

In this unit students study nature's impact on humans, as well as the ecological, social and economic implications of human impact on outdoor environments. Students develop a clear understanding of the impact of technologies and changing human lifestyles on outdoor environments.

Students examine a number of case studies of specific outdoor environments, including areas where there is evidence of human intervention. They develop the practical skills required to minimise human impact on outdoor environments. Students are provided with practical experiences as the basis for comparison between outdoor environments and reflection to develop theoretical knowledge about natural environments.

AREA OF STUDY 1

Investigating outdoor environments

This area of study introduces students to the characteristics of a variety of outdoor environments, including those visited during practical outdoor experiences. Students investigate different types of outdoor environments from a number of perspectives.

Students undertake case studies of different types of outdoor environments so they can observe and experience how changes to nature affect people. They develop appropriate practical skills for safe and sustainable participation in outdoor experiences and for investigations into various outdoor environments. Students use these experiences as the basis for reflection and analysis of the theoretical knowledge of natural environments.

Outcome 1

On completion of this unit the student should be able to describe the characteristics of different outdoor environments and analyse a range of understandings of these environments, with reference to specific outdoor experiences.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 1.

Key knowledge

- characteristics of outdoor environments, including alpine, marine, coastal, wetlands, grassland, forest and arid
- recreational users' understandings of specific outdoor environments
- scientific understandings of specific outdoor environments, including:
 - interrelationships between biotic and abiotic components
 - effects of natural changes to environments on people and places such as day to night, seasons, tides, fire, flood, drought, migration, succession, and climate change
- land managers' understandings of specific outdoor environments, including the features which can be used to delineate one particular area from another such as landform, vegetation type, public and private land, types of parks and reserves, management zones
- other understandings of specific outdoor environments, such as artistic, Indigenous, and historical.

Key skills

- plan for and reflect upon a range of practical sustainable outdoor experiences and analyse relevant information collected
- describe, compare and contrast the characteristics of different outdoor environments
- analyse different understandings of the use of, and cultural relationship to, outdoor environments.

AREA OF STUDY 2**Impacts on outdoor environments**

In this area of study students focus on human activities undertaken in outdoor environments and their impacts on those environments. Although environmental impacts include both natural and human-induced changes on components of the environment, the focus here is on human impact – both positive and negative.

Students investigate and model individual and group responsibilities for activities in outdoor environments, including codes of conduct for recreational activities and community-based environmental action to promote positive impacts on outdoor environments.

Practical outdoor experiences enable students to develop skills related to minimal impact travelling and living, and to experience the impact of technology on outdoor environments. Students use these experiences as the basis for reflection and analysis of theoretical knowledge about natural and human-induced impacts on outdoor environments.

Outcome 2

On completion of this unit the student should be able to evaluate human impacts on outdoor environments and analyse procedures for promoting positive impacts, with reference to specific outdoor experiences.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2.

Key knowledge

- the impact of conservation, commercial and recreational activities on outdoor environments
- community-based environmental action to promote positive human impacts on outdoor environments
- rationales for codes of conduct relating to recreational activities
- impacts of technologies on outdoor environments, including:
 - direct impacts, such as recreational vehicles and snow making
 - indirect or deferred impacts, such as equipment manufacture and transport
- the impact on outdoor environments of urbanisation and changing human lifestyles.

Key skills

- plan for and reflect upon a range of practical sustainable outdoor experiences and analyse relevant information collected
- identify and evaluate impacts of different types of activities on outdoor environments
- identify and apply practices for promoting positive impacts on outdoor environments
- discuss the application of codes of conduct relating to recreational activities in outdoor environments
- analyse direct and indirect impacts of technologies on outdoor environments
- analyse the impact of urbanisation and changing human lifestyles on outdoor environments.

ASSESSMENT

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's overall performance on assessment tasks designated for the unit.

The key knowledge and key skills listed for each outcome should be used as a guide to course design and the development of learning activities. The key knowledge and key skills do not constitute a checklist and such an approach is not necessary or desirable for determining the achievement of outcomes. The elements of key knowledge and key skills should not be assessed separately.

Assessment tasks must be a part of the regular teaching and learning program and must not unduly add to the workload associated with that program. They must be completed mainly in class and within a limited timeframe. Teachers should select a variety of assessment tasks for their assessment program to reflect the key knowledge and key skills being assessed and to provide for different learning styles.

For this unit students are required to demonstrate achievement of two outcomes. As a set these outcomes encompass both areas of study.

Demonstration of achievement of Outcomes 1 and 2 must be based on the student's performance on a selection of assessment tasks. Where teachers allow students to choose between tasks they must ensure that the tasks they set are of comparable scope and demand.

Assessment tasks for this unit are selected from the following:

- a journal/report of outdoor experiences
- a case study analysis
- oral presentations
- practical reports in a non-text format such as multimedia, audio podcasts, annotated visual display
- data analysis
- tests
- written responses, including essays, short answers, weblogs, web discussion forums.

Unit 3: Relationships with outdoor environments

The focus of this unit is the ecological, historical and social contexts of relationships between humans and outdoor environments in Australia. Case studies of impacts on outdoor environments are examined in the context of the changing nature of human relationships with outdoor environments in Australia.

Students consider a number of factors that influence contemporary relationships with outdoor environments. They also examine the dynamic nature of relationships between humans and their environment.

Students are involved in one or more experiences in outdoor environments, including in areas where there is evidence of human interaction. Through these practical experiences students are provided with the basis for comparison and reflection, and opportunities to develop theoretical knowledge and skills about specific natural environments.

AREA OF STUDY 1

Historical relationships with outdoor environments

This area of study explores how Australians have understood and interacted with outdoor environments over time. Students examine the unique nature of Australian outdoor environments and investigate a range of human relationships with outdoor environments, from various Indigenous cultural experiences, through to the influence of a number of major events and issues subsequent to European settlement. Case studies are used to analyse the role of environmental movements in changing human relationships with outdoor environments. Students must study the role of at least one environmental movement in changing relationships with outdoor environments.

Students engage in practical outdoor experiences that enable them to investigate human relationships with specific outdoor environments.

Outcome 1

On completion of this unit the student should be able to explain and evaluate how relationships with Australian outdoor environments have changed over time, with reference to specific outdoor experiences.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 1.

Key knowledge

- an overview of Australian outdoor environments before humans, including characteristics of biological isolation, geological stability, and climatic variations
- relationships with Australian outdoor environments expressed by specific Indigenous communities before and after European colonisation
- relationships with Australian outdoor environments as influenced by:
 - the first non-Indigenous settlers' experiences
 - increasing population
 - industrialisation
 - nation building
- the foundation and role of environmental movements in changing relationships with outdoor environments, in relation to at least one of the following:
 - The Wilderness Society
 - Australian Conservation Foundation
 - Victorian National Parks Association
 - Greenpeace
 - Gould League.

Key skills

- describe the characteristics of the Australian environment before humans
- describe and analyse the changing relationships with Australian outdoor environments expressed by specific Indigenous communities
- describe and analyse the changing relationships with Australian outdoor environments influenced by historical events and associated key social and cultural issues
- evaluate the role of a specific environmental movement in changing relationships with outdoor environments
- plan for and reflect upon a range of practical sustainable outdoor experiences and analyse relevant information collected during these experiences
- evaluate changing relationships in relation to a particular outdoor environment visited.

AREA OF STUDY 2**Contemporary relationships with outdoor environments**

In this area of study students examine current relationships between humans and outdoor environments. They examine a number of ways outdoor environments are portrayed in different media; the dynamic nature of relationships between humans and their environment; and the social, cultural, economic and political factors that influence these relationships.

Students engage in practical outdoor experiences that enable them to collect information about, and reflect on and analyse, contemporary relationships with outdoor environments.

For the purposes of this study, 'contemporary' refers to events and interactions within the last ten to fifteen years.

Outcome 2

On completion of this unit the student should be able to analyse and evaluate the factors influencing contemporary societal relationships with outdoor environments, with reference to specific outdoor experiences.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2.

Key knowledge

- contemporary societal relationships with outdoor environments reflected in different forms of conservation, recreation, primary industries, and tourism practices
- the factors influencing contemporary societal relationships with outdoor environments, including:
 - the effects of different technologies
 - commercialisation of outdoor environments and outdoor experiences
 - portrayals of outdoor environments and outdoor experiences in the media, music, art, writing and advertising
 - social responses to risk taking
 - social and political discourses about climate change, water management, biosecurity and other contemporary environmental issues.

Key skills

- plan for and reflect upon a range of practical sustainable outdoor experiences and analyse relevant information collected during these experiences
- compare and contrast different contemporary societal relationships with outdoor environments
- analyse and evaluate factors influencing contemporary societal relationships with outdoor environments
- analyse contemporary social and political discourses about environmental issues.

ASSESSMENT

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's overall performance on assessment tasks designated for the unit. The Victorian Curriculum and Assessment Authority publishes online an assessment handbook for this study that includes advice on the assessment tasks and performance descriptors for assessment.

The key knowledge and key skills listed for each outcome should be used as a guide to course design and the development of learning activities. The key knowledge and key skills do not constitute a checklist and such an approach is not necessary or desirable for determining the achievement of outcomes. The elements of key knowledge and key skills should not be assessed separately.

Assessment of levels of achievement

The student's level of achievement in Unit 3 will be determined by School-assessed Coursework and an end-of-year examination.

Contribution to final assessment

School-assessed Coursework for Unit 3 will contribute 25 per cent.

The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 50 per cent.

School-assessed Coursework

Teachers will provide to the Victorian Curriculum and Assessment Authority a score representing an assessment of the student's level of achievement.

The score must be based on the teacher's rating of performance of each student on the tasks set out in the following table and in accordance with the assessment handbook published online by the Victorian Curriculum and Assessment Authority. The assessment handbook also includes advice on the assessment tasks and performance descriptors for assessment.

Assessment tasks must be a part of the regular teaching and learning program and must not unduly add to the workload associated with that program. They must be completed mainly in class and within a limited timeframe. Where teachers provide a range of options for the same assessment task, they should ensure that the options are of comparable scope and demand. Teachers should select a variety of assessment tasks for their program to reflect the key knowledge and key skills being assessed and to provide for different learning styles.

Outcomes	Marks allocated*	Assessment tasks
Outcome 1 Explain and evaluate how relationships with Australian outdoor environments have changed over time, with reference to specific outdoor experiences.	50	At least one task from the following: <ul style="list-style-type: none"> • a case study • a multimedia presentation • written analysis and evaluation • an oral presentation.
Outcome 2 Analyse and evaluate the factors influencing contemporary societal relationships with outdoor environments, with reference to specific outdoor experiences.	50	At least one task from the following: <ul style="list-style-type: none"> • a test • data analysis • written analysis and evaluation.
Total marks	100	

*School-assessed Coursework for Unit 3 contributes 25 per cent.

Unit 4: Sustainable outdoor relationships

In this unit students explore the sustainable use and management of outdoor environments. They examine the contemporary state of environments in Australia, consider the importance of healthy outdoor environments, and examine the issues in relation to the capacity of outdoor environments to support the future needs of the Australian population.

Students examine the importance of developing a balance between human needs and the conservation of outdoor environments and consider the skills needed to be environmentally responsible citizens. They investigate current agreements and environmental legislation, as well as management strategies and policies for achieving and maintaining healthy and sustainable environments in contemporary Australian society.

Students engage in one or more related experiences in outdoor environments. They learn and apply the practical skills and knowledge required to sustain healthy outdoor environments, and evaluate the strategies and actions they employ. Through these practical experiences students are provided with the basis for comparison and reflection, and opportunities to develop and apply theoretical knowledge about outdoor environments.

AREA OF STUDY 1

Healthy outdoor environments

This area of study explores the contemporary state of environments in Australia and the importance of natural environments for individuals and society. Students examine the nature of sustainability and, using key indicators, evaluate the health of outdoor environments. They investigate current and potential impacts of damage to outdoor environments.

Practical outdoor experiences enable students to further develop and apply their practical knowledge and skills for safe and sustainable interaction with outdoor environments.

Outcome 1

On completion of this unit the student should be able to evaluate the contemporary state of Australian outdoor environments, and analyse the importance of healthy outdoor environments and sustainability for individuals and society, with reference to specific outdoor experiences.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 1.

Key knowledge

- understandings and critiques of sustainability and sustainable development
- indicators of healthy outdoor environments, including:
 - quality and adequacy of water, air and soil
 - levels of biodiversity, pest and introduced species
- the contemporary state of outdoor environments in Australia, with reference to common themes used in State of the Environment reports
- the importance of healthy outdoor environments for individual physical and emotional wellbeing, and for the future of society
- the potential impact on society and outdoor environments of land degradation, introduced species, climate change, urbanisation and other significant threats.

Key skills

- plan for and reflect upon a range of practical sustainable outdoor experiences and analyse relevant information collected during these experiences
- identify definitions of sustainability and analyse the concept of sustainable development
- describe a range of different indicators that can be used to identify healthy outdoor environments
- evaluate the contemporary state of Australian outdoor environments
- collect and interpret data on the contemporary state of a particular outdoor environment
- analyse the importance of healthy outdoor environments for individuals and society
- identify and predict the potential impact of significant threats on society and outdoor environments.

AREA OF STUDY 2

Sustainable outdoor environments

In this area of study students focus on the sustainability of environments in order to support the future needs of ecosystems, individuals and society, and the skills needed to be an environmentally responsible citizen. Students investigate at least two case studies of conflicts of interest between people involved in uses of outdoor environments, and develop a clear understanding of the methods and processes commonly used to resolve these conflicts.

Students develop an understanding that management strategies and policies, together with legislation and agreements, contribute to maintaining the health and sustainability of outdoor environments in contemporary Australian society.

Students use their outdoor experiences to reflect on the actions taken by individuals and groups in contemporary Australia to maintain the health of outdoor environments.

Outcome 2

On completion of this unit the student should be able to analyse conflicts of interest over the use of outdoor environments, and evaluate practices and strategies for sustaining outdoor environments, with reference to specific outdoor experiences.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2.

Key knowledge

- at least two conflicts of interest between people involved in uses of outdoor environments, including at least one from the following:
 - Marine national parks and sanctuaries (Victoria)
 - Franklin River campaign (Tasmania)
 - Grazing in the Alpine National Park (Victoria)
 - Desalination plant at Wonthaggi (Victoria)
- the methods used by individuals and groups to influence decisions about the use of outdoor environments
- the decision-making processes followed by land managers and/or governments or their agencies relating to conflicting interests over the use of outdoor environments, including the role of the Victorian Environment Assessment Council (VEAC)
- management strategies and policies for achieving and maintaining healthy and sustainable outdoor environments that may be adopted by public and private land managers, including at least one from the following:
 - Trust for Nature (Victoria)
 - Australia’s Biodiversity Conservation Strategy 2010–2020 (Australia)
 - Victoria’s Native Vegetation Management: A framework for action (Victoria)
- at least two acts or conventions related to the management and sustainability of outdoor environments, including at least one from the following:
 - *Flora and Fauna Guarantee Act 1988* (Vic)
 - *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth)
 - Ramsar Convention (international treaty, 1971)
- actions undertaken to sustain healthy outdoor environments, including at least two of the following:
 - green building design
 - integrated farming
 - urban planning
 - renewable energy
 - Landcare.

Key skills

- plan for and reflect upon a range of practical sustainable outdoor experiences and analyse relevant information collected during these experiences
- explain the actions undertaken by individuals and groups with respect to conflicts over the use of outdoor environments
- analyse methods used by individuals and groups to influence decisions about the use of outdoor environments
- evaluate decision-making processes relating to conflicting interests over the use of outdoor environments
- analyse specific management strategies and policies for maintaining outdoor environments
- describe specific legislation and agreements related to managing and sustaining outdoor environments
- analyse specific actions undertaken to sustain healthy outdoor environments.

ASSESSMENT

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's overall performance on assessment tasks designated for the unit. The Victorian Curriculum and Assessment Authority publishes online an assessment handbook for this study that includes advice on the assessment tasks and performance descriptors for assessment.

The key knowledge and key skills listed for each outcome should be used as a guide to course design and the development of learning activities. The key knowledge and key skills do not constitute a checklist and such an approach is not necessary or desirable for determining the achievement of outcomes. The elements of key knowledge and key skills should not be assessed separately.

Assessment of levels of achievement

The student's level of achievement for Unit 4 will be determined by School-assessed Coursework and an end-of-year examination.

Contribution to final assessment

School-assessed Coursework for Unit 4 will contribute 25 per cent.

The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 50 per cent.

School-assessed Coursework

Teachers will provide to the Victorian Curriculum and Assessment Authority a score representing an assessment of the student's level of achievement.

The score must be based on the teacher's rating of performance of each student on the tasks set out in the following table and in accordance with the assessment handbook published online by the Victorian Curriculum and Assessment Authority. The assessment handbook also includes advice on the assessment tasks and performance descriptors for assessment.

Assessment tasks must be a part of the regular teaching and learning program and must not unduly add to the workload associated with that program. They must be completed mainly in class and within a limited timeframe. Where teachers provide a range of options for the same assessment task, they should ensure that the options are of comparable scope and demand. Teachers should select a variety of assessment tasks for their program to reflect the key knowledge and key skills being assessed and to provide for different learning styles.

Outcomes	Marks allocated*	Assessment tasks
<p>Outcome 1 Evaluate the contemporary state of Australian outdoor environments, and analyse the importance of healthy outdoor environments and sustainability for individuals and society, with reference to specific outdoor experiences.</p>	40	<p>At least one task from the following:</p> <ul style="list-style-type: none"> • a case study • data analysis • a multimedia presentation • written analysis and evaluation • an oral presentation.
<p>Outcome 2 Analyse conflicts of interest over the use of outdoor environments, and evaluate practices and strategies for sustaining outdoor environments, with reference to specific outdoor experiences.</p>	60	<p>At least two tasks from the following:</p> <ul style="list-style-type: none"> • a case study • a test • data analysis • written analysis and evaluation.
Total marks	100	

*School-assessed Coursework for Unit 4 contributes 25 per cent.

End-of-year examination

Description

The examination will be set by a panel appointed by the Victorian Curriculum and Assessment Authority. All the key knowledge and key skills that underpin the outcomes in Units 3 and 4 are examinable.

Conditions

The examination will be completed under the following conditions:

- Duration: two hours.
- Date: end-of-year, on a date to be published annually by the Victorian Curriculum and Assessment Authority.
- Victorian Curriculum and Assessment Authority examination rules will apply. Details of these rules are published annually in the *VCE and VCAL Administrative Handbook*.
- The examination will be marked by assessors appointed by the Victorian Curriculum and Assessment Authority.

Contribution to final assessment

The examination will contribute 50 per cent.

Further advice

The Victorian Curriculum and Assessment Authority publishes specifications for all VCE examinations on the Victorian Curriculum and Assessment Authority website. Examination specifications include details about the sections of the examination, their weighting, the question format/s and any other essential information. The specifications are published in the first year of implementation of the revised Units 3 and 4 sequence together with any sample material.

Advice for teachers

The Victorian Essential Learning Standards (VELS) is the curriculum framework for the compulsory years of schooling in Victoria. Links between the VCE Outdoor and Environmental Studies study and the VELS are shown below.

VCE Outdoor and Environmental Studies provides students with opportunities to develop employability skills. The links between the forms of assessment in the study design and employability skills are provided in the table on pages 28 and 29.

VICTORIAN ESSENTIAL LEARNING STANDARDS (VELS)

VCE Outdoor and Environmental Studies builds on knowledge and skills developed in the VELS domains of Health and Physical Education, Geography, Civics and Citizenship, Interpersonal Development and Thinking Processes.

The key knowledge in VCE Outdoor and Environmental Studies builds on the concepts and skills in the Health and Physical Education domain where students compare and evaluate perceptions of challenge, risk and safety.

The Geography domain provides students with the knowledge and skills to observe and describe places, including outdoor environments. Students learn about the impact of development-related projects, policies and strategies (such as large-scale water projects, tourism, and population control) on physical and human landscapes. The concept of sustainability is a focus of both VELS Geography and VCE Outdoor and Environmental Studies.

The Civics and Citizenship domain provides students with knowledge, skills and opportunities to understand and practise what it means to be a citizen in a democracy. The Civic knowledge and understanding dimension focuses on the principles and practices that underpin civic institutions and civic life in communities and societies. Students explore the concepts of sustainability in local, national and global contexts, as well as the features of the Australian political, government and legal systems. The Community engagement dimension encourages students to draw on a range of resources to articulate and defend their opinions about political, social and environmental issues in national and global contexts. Students develop an action plan which demonstrates their knowledge of a social or environmental issue and suggest strategies to raise community awareness of it.

EMPLOYABILITY SKILLS

Units 1 to 4 of VCE Outdoor and Environmental Studies provide students with the opportunity to engage in a range of learning activities. In addition to demonstrating their understanding and mastery of the content and skills specific to the study, students may also develop employability skills through their learning activities.

The nationally agreed employability skills* are: Communication; Planning and organising; Teamwork; Problem solving; Self-management; Initiative and enterprise; Technology; and Learning.

Each employability skill contains a number of facets that have a broad coverage of all employment contexts and are designed to describe all employees. The table below links those facets that may be understood and applied in a school or non-employment related setting, to the types of assessment commonly undertaken within the VCE study.

Assessment task	Employability skills: selected facets
Case study analysis	<p>Communication (writing to the needs of the audience; reading independently)</p> <p>Planning and organising (collecting, analysing and organising information)</p> <p>Problem solving (applying a range of strategies)</p>
Data analysis	<p>Communication (reading independently; writing to the needs of the audience)</p> <p>Planning and organising (collecting, analysing and organising information)</p> <p>Problem solving (applying a range of strategies)</p> <p>Technology (using IT to organise data)</p>
Journal of outdoor experiences	<p>Communication (writing to the needs of the audience)</p> <p>Problem solving (testing assumptions taking the context of data and circumstances into account; collecting, analysing and organising information; managing own learning)</p>
Multimedia presentation	<p>Communication (sharing information; speaking clearly and directly)</p> <p>Technology (having a range of basic IT skills; using IT to organise data; being willing to learn new IT skills)</p>
Oral presentation	<p>Communication (sharing information; speaking clearly and directly; writing to the needs of the audience)</p> <p>Planning and organising (collecting, analysing and organising information)</p> <p>Technology (using IT to organise data)</p>
Practical reports	<p>Initiative and enterprise (generating a range of options; initiating innovative solutions; being creative)</p> <p>Planning and organising (planning the use of resources including time management; collecting, analysing and organising information)</p> <p>Problem solving (developing practical solutions; testing assumptions taking the context of data and circumstances into account)</p> <p>Self management (evaluating and monitoring own performance)</p> <p>Teamwork (working as an individual and as a member of a team; knowing how to define a role as part of the team)</p>

*The employability skills are derived from the Employability Skills Framework (*Employability Skills for the Future*, 2002), developed by the Australian Chamber of Commerce and Industry and the Business Council of Australia, and published by the (former) Commonwealth Department of Education, Science and Training.

Assessment task	Employability skills: selected facets
Test	Communication (writing to the needs of the audience) Problem solving (applying a range of strategies to problem solving)
Written analysis and evaluation	Communication (writing to the needs of the audience) Problem solving (applying a range of strategies to problem solving; collecting, analysing and organising information)

DEVELOPING A COURSE

A course outlines the nature and sequence of teaching and learning necessary for students to demonstrate achievement of the set of outcomes for a unit. The areas of study broadly describe the learning context and the knowledge required for the demonstration of each outcome. Outcomes are introduced by summary statements and are followed by the key knowledge and key skills which relate to the outcomes.

Teachers must develop courses that include appropriate learning activities to enable students to acquire the key knowledge and key skills associated with each outcome statement in each unit.

For Units 1 and 2, teachers must select assessment tasks from the list provided. Tasks should provide a variety and the mix of tasks should reflect the fact that different types of tasks suit different knowledge and skills and different learning styles. Tasks do not have to be lengthy to make a decision about student demonstration of achievement of an outcome.

In Units 3 and 4, assessment is more structured. For some outcomes, or aspects of an outcome, the assessment tasks are prescribed. The contribution that each outcome makes to the total score for School-assessed Coursework is also stipulated.

Linking theory and practice

Experiential education is the foundation of this course. Significant learning occurs during the practical application of the knowledge and skills developed in the classroom. It is vital therefore, that the development of a course reflects the strong links between theoretical and practical understanding that enable students to make critically informed decisions and understand the importance of environmental health.

Teachers should be mindful of the rationale and aims of the study when planning a teaching and learning program. The theoretical material covered in class should underpin practical experiences and wherever possible be explored experientially. Similarly, practical experiences should be able to be drawn upon by teachers to assist students in their attempts to understand the theory covered in class. For example, applying navigation techniques on a bushwalk may result in a better understanding of navigation, but may also form a basis for consideration of more complex navigation techniques and the associated aspects of key knowledge such as the characteristics, structure and function of natural environments. In the same way, a bushwalk may follow the study of the effects of commercial use of a particular area. This outdoor experience may provide a better understanding of effects on that environment as well as the opportunity to collect information that may be used subsequently.

Kinds of outdoor experiences

The focus of the study moves from the individual and the outdoor environment in Unit 1, to discovering and looking at impacts on outdoor environments in Unit 2, to a comparison of historical and contemporary relationships with the outdoor environment in Unit 3, and finally to a consideration of sustaining outdoor environments in Unit 4. Although no specific outdoor experiences are mandated in the study design, the key knowledge and skills related to the outcomes will be learned through consideration of, and participation in, outdoor experiences.

Recreation activities are used to learn about the natural environment. The activity itself is not intended to be the focus or an end in itself, but is a window for entry into the study at different points. The activities should enable students to develop personal critiques of human–nature relationships. The activities should encourage a sympathetic understanding of nature and allow students to engage in and contribute to informed discussions of environmental issues. Therefore, experiences need to be framed and structured to ensure that observation and exploration are key features.

Activities should be selected that:

- allow a journey through an environment
- facilitate the observation of the characteristics and types of environments
- allow students to observe the effects of nature on humans and the effects of humans on nature.

For example, a bushwalk might be of shorter distance to incorporate more detailed observations, discussion and recording, rather than being a test of fitness and stamina. Small groups in preference to the single-file bushwalk will facilitate exploration. Coastal experiences might include extended rock pool rambles, coastal walks and snorkelling as well as the traditional activities of surfing and body boarding.

Generally, the choice of an outdoor experience and environment will depend upon the unit's outcomes, local resources, and school policy. Some outcomes may lend themselves to dealing with a number of outdoor experiences and environments, while in others a more detailed consideration of only one or two may be appropriate.

Outdoor environments range from those that have experienced minimal influence from humans, through to those that have been subject to human intervention. To address the key knowledge in Units 3 and 4, it will be necessary to choose venues that have been subject to human intervention.

Protecting outdoor environments

VCE Outdoor and Environmental Studies provides students with the skills and knowledge to participate safely in activities in outdoor environments and to respect and value outdoor environments. Planning for outdoor activities should take into account strategies to minimise impact on outdoor environments. Permission from land managers should be sought prior to visits. See the Parks Victoria website <www.parkweb.vic.gov.au/education/minimalimpact.html> for advice about planning for outdoor activities and a range of strategies for minimising impact on outdoor environments.

GLOSSARY

For the purposes of this study design the following definitions will apply.

Term	Definition
Biosecurity	A term often used to refer to the preventative measures used to reduce the risk of transmission of infectious diseases, quarantined pests and invasive species. In the context of this study, that definition is used in conjunction with a consideration of the security of food and other natural resources.
Contemporary	Contemporary refers to events or actions that are recent. In the context of this study, contemporary is taken to mean occurring within the last 10 to 15 years.
Integrated farming	An approach to farming that combines the best traditional methods with modern technology. Generally integrated farming combines both livestock and crop production and involves a more diverse method of farming than monoculture approaches. The aim of integrated farming is to achieve high productivity and a low environmental impact.
Nation building	The process of constructing a national identity. Nation building can include the development of national myths and national public holidays, as well as major infrastructure development, such as roads, dams, energy schemes, and railways.
Outdoor environment	Those environments that have minimal influence from humans, but may also include those that have been subject to human intervention.
Outdoor experiences	A range of experiences including physical activities such as bushwalking, canoeing, cross-country skiing in a variety of outdoor environments as well as nature observations and visits to areas such as farms, mining/logging sites, interpretation centres.
Relationships with outdoor environments	The interconnection between perceptions of, interactions with, and impacts on outdoor environments.
Urban/built environments	Areas of permanent infrastructure designed to support higher population densities. Urban/built environments include cities, regional centres and towns.

SUITABLE RESOURCES

Courses must be developed within the framework of the study design: the areas of study, outcome statements, and key knowledge and key skills.

A list of suitable resources for this study has been compiled and is available via the Outdoor and Environmental Studies study page on the Victorian Curriculum and Assessment Authority website: <www.vcaa.vic.edu.au/vce/studies/index.html>.

LEARNING ACTIVITIES

Implementation advice and example learning activities for each unit are provided below. Examples in the shaded boxes are explained in detail in accompanying boxes.

Teachers should consider these activities in conjunction with the key knowledge and key skills identified for each outcome within the study.

Unit 1: Exploring outdoor experiences

For Area of Study 1 students focus on gaining an understanding of what motivates them, as individuals, to interact with nature and partake in outdoor experiences and the subsequent responses to these interactions. Students need to begin to develop an understanding of key terminology such as ‘nature’. They also need to identify the variety of different outdoor environments and outdoor experiences.

Motivations for undertaking outdoor experiences are explored. This provides an opportunity for students to identify personal responses to outdoor environments and to articulate their personal motivations for seeking outdoor experiences. Understanding what motivates students can assist teachers to shape the practical experiences undertaken throughout the course, which can lead to an increase in student engagement with outdoor environments. While on practical experiences, discussion around what motivates other individuals encountered will also help students gain a wider understanding of the wide variety of motivations people have to encounter the outdoors.

Understanding personal responses to outdoor environments is pivotal to understanding how and why people interact with outdoor environments. Teachers should place emphasis on the fact that students can have a range of responses to a variety of environments and encourage them to think about what has caused that response. Media portrayals of outdoor environments can create a wide range of personal responses. It is important to focus on the personal response the media engenders in the individual – not the response the media portrays or that of society.

Following on from a personal response to media portrayal is personal response to risk. Discussions should focus on what risk is, the difference between real and perceived risk and the influence of the individual’s level of competence. While on practical experiences it is important to use this terminology so students can apply their knowledge to real life situations as well as case studies.

For Area of Study 2, students’ focus broadens from the individual’s response to outdoor environments to cover the ways in which others may experience the outdoors. A variety of ways of experiencing and knowing outdoor environments is explored as well as factors that affect access to outdoor experiences. Students should compare a range of individual responses to outdoor environments, including those of others within and outside the class.

Linking in with this idea is the exploration of different ways of knowing outdoor environments. Experiential knowledge, environmental and natural history, ecological, social and economic perspectives are some of the ways people can get to know an environment. These terms should be explored so students are able to fully understand them as they apply to outdoor environments. Linking these terms to a practical experience that the class has shared would be particularly useful so that students can share a common understanding and discussion point.

A range of factors such as socioeconomic status, cultural/geographic background and physical ability affect an individual's ability to access outdoor environments. Depending on the demographic of the students in the class, this area may need to be approached with a degree of care. However, these are important areas to cover to raise student awareness of issues that may be faced by people wanting to access the outdoors. In this discussion, students may look at a range of outdoor experiences and how accessible and inaccessible they are to certain groups. They can focus on outdoor experiences that are easy to access for most people such as taking a walk in a local bushland reserve or park. From there this can move through to activities that would exclude some groups, such as those activities that are more expensive or require a degree of specialised skill or equipment.

The impacts (both positive and negative) of a range of relevant technologies on outdoor experiences are explored. A suggested starting point is to focus on technologies that are known to students and within their range of experience, allowing them to consider both the positive and negative impacts of specific technologies.

Example activities

AREA OF STUDY 1: Motivations for outdoor experiences

Outcome 1

Describe motivations for participation in and personal responses to outdoor environments and experiences, with reference to specific outdoor experiences.

Examples of learning activities

use Google/docs to generate a class compilation of individual or group definitions of key terms such as nature, wilderness, outdoor environments etc; use a program such as Wordle <www.wordle.net> to provide a pictorial representation of the most common words used in each definition; rework the most commonly used words into own definitions which can be displayed around the classroom; compare other well-known definitions with those generated by the class

write a reflective journal entry about motivations for undertaking outdoor experiences and what they hope to get out of this subject; journal entries could be recorded on a class or individual blog such as Global Teacher or Global Student; for more information about blogs see Technology A–Z <www.education.vic.gov.au/studentlearning/elearning/technology/blogs.htm>

use Google Images, Flickr or Tag Galaxy to collect a number of images of outdoor environments; write one or two words in response to the scene when showed; provide a list of descriptive words to assist with this task such as awe, appreciation, contemplation, fear; collate the words for each picture using Wordle and display with pictures around the room

conduct a survey in the school to analyse other students' (outside of the class) motivations for seeking, and responses to, outdoor experiences and environments; record this on the class wiki and write a short report outlining the results of the survey

use ClassMarker, eQuizzer, EasyTest Maker or Hot Potatoes for small groups to generate a list of statements that represent different types of outdoor environments and experiences; use these as a basis for a class quiz

invite an adventurer to talk to the class about his/her personal experiences; this could be recorded as a podcast and uploaded to the class wiki such as Wikispaces, Wetpaint or PB Works; prepare either a poster or a PowerPoint presentation about the adventure, describing the person's experiences and motivation for undertaking the adventure compared to the student's own experience; information on podcasting and how to use a wiki can be accessed at Technology A–Z <www.education.vic.gov.au/studentlearning/elearning/technology/default.htm>

each student collects three different newspaper or magazine articles on outdoor environments and outdoor experiences; group the articles with similar personal responses and create a poster; once articles are grouped arrange the class into groups so there is one group per poster and get each group to contribute a few discussion dot points on each poster about the personal views being portrayed; remind students that the focus is on their personal response – not the media's response

using a media article about a specific risk, such as a shark attack, students reflect on how the article makes them feel; for example, would they swim or surf in that area?

using *Adventure Experience Paradigm* (Priest & Gass, 1997) discuss with students different times they have been at the different stages of adventure and if their feeling of risk was real or perceived; using the media articles from the previous activity, pose questions about real and perceived risk

students reflect on two different times in their lives when they felt they were 'at risk'; analyse whether the risk was real or perceived and how their competence in the activity they were doing affected their behaviour

to help students to plan for participation, undertake a cooking class using the stoves students will be using on outdoor trips and provide them with 'fail safe' tasty and healthy recipes

undertake a new outdoor practical experience and learn a skill that is required for safe participation in that activity; record impressions of the natural environment from a 'newcomers' point of view

undertake practice navigational exercises using a Geographical Positioning System (GPS) and compass

show a DVD such as 'Preparing for an Expedition' to help students prepare for their first outdoor experience as a class

Detailed example**SURVEY ABOUT PARTICIPATION**

Conduct a survey of other students in the school to collect data on motivations for seeking, and responses to, outdoor experiences and environments. Record the survey results on the class wiki.

The questionnaire for the survey would include the following questions:

- what are the different types of outdoor environments?
- what are your motivations for seeking outdoor experiences?
- what are your personal responses to those different outdoor environments?
- how have you interacted with outdoor environments to date, including previous experiences at school?

Students should reflect on their discussions and the survey results to analyse:

- motivations for seeking outdoor experiences
- other people's uses of outdoor environments
- personal responses to outdoor environments.

Students should write a short report analysing the data they have collected.

Create a class wiki space using Wikispaces, Wetpaint or PB Works. The wiki space can be used for discussion throughout the unit.

Allow class time and computer access over the first few weeks to get students into the habit of contributing to the wiki.

Information on how to use a wiki can be accessed at ConnectTechnology A-Z <www.education.vic.gov.au/teacher/wikistudentlearning/elearning/technology/wikis.htm>.

AREA OF STUDY 2: Experiencing outdoor environments**Outcome 2**

Describe ways of knowing and experiencing outdoor environments and evaluate factors that influence outdoor experiences, with reference to specific outdoor experiences.

Examples of learning activities

using a case study or referring to a specific environment visited, discuss the range of ways people may experience a specific environment; guide the discussion by providing students with a range of potential ways of knowing outdoor environments, such as a resource, for recreation, adventure, spiritual connection, and as a study site; do not limit students to this list

complete a reflective journal entry where students describe how they have experienced outdoor environments in their life; students describe one particular environment that is important to them and ways in which they know that environment; for example, if they enjoy fishing how do they 'know' where to catch the best fish; journal entries could be recorded on a class or individual blog such as Global Teacher or Global Student; for more information about blogs see Technology A-Z <www.education.vic.gov.au/studentlearning/elearning/technology/blogs.htm>

as a class, brainstorm a list of ways in which students and others use outdoor environments; include common uses such as a resource and a study site; classify the examples on the list according to the categories of use

for practical experience include visits to sites such as logging coups, farms, an active mine, Indigenous sites and recreation sites; organise a guest speaker from each of the sites so they can share their way of knowing outdoor environments and what the outdoor environment means to them; use concept mapping software such as SmartDraw, Webspiration, Cmaps, Inspiration, MindManager, Mind 42, MindMeister, Mindomo, Bubbl.us or FreeMind to develop a concept map that describes different ways of knowing and experiencing outdoor environments

research the local area to track how outdoor environments in the area have been used over time and how that has shaped the use of the outdoor environments today

use Intel Visual Ranking Tool to create a continuum from 'high access' to 'low access'; compare very high access examples (such as going for a walk in the local park) to extreme low access examples such as those on documentaries 'Touching the Void' and 'Base Climb 1 & 2'; watch some of these or other similar documentaries and discuss as a class what makes these experiences low access

conduct a survey in the local community investigating factors that influence people's engagement with outdoor experiences; write a report on findings

create a table with outdoor environments across the top and the different 'way of knowing' down the side; for example, experiential (including recreation), environmental and natural history, ecological, social and economic; through class discussion, unpack what each of these terms mean and provide concrete examples from the specific outdoor environment visited and record these in the table

create a table that compares old technologies with new technologies; record journal entries outlining the impact of technologies on outdoor experiences

Detailed example

THE EFFECT OF TECHNOLOGY

Bring in examples of 'old' technology (i.e. an old hiking pack, a closed cell foam mat; leather ski boots, a hand held radio; compass, paper map) and also the 'updated' version (i.e. a new hiking pack, Therm-a-Rest, plastic ski boots, mobile phone; hand held GPS device; EPRB).

Students create a table with four columns and the following headings:

- column 1 – the old technology
- column 2 – the new technology
- column 3 – how/what has changed
- column 4 – how this change has effected the individual's experience (include positive and negative effects)

Students write a list of new technologies the class will use on their practical experience. While on their practical outdoor experience, students record in their journal how and when they used technology on their trip and how this impacted (positively and negatively) on their experience. Journal entries could be recorded on a class or individual blog such as Global Teacher or Global Student; for more information about blogs see Technology A–Z <www.education.vic.gov.au/studentlearning/elearning/technology/blogs.htm>.

Unit 2: Investigating outdoor environments

For Area of Study 1, students are introduced to the characteristics of a range of outdoor environments from a variety of perspectives. A comprehensive way to cover this topic would be through a case study where students explore an outdoor environment from a range of understandings including recreational, scientific, land management, artistic, historical and Indigenous.

Students should investigate a wide range of environments including alpine, marine, coastal, wetlands, grassland, forest, and arid environments. Where possible, on course-based outdoor experiences, visit a range of these environments so students can see these environments first hand. Characteristics examined (but not limited to) could include common flora and fauna, geology, climate, and biodiversity.

For Area of Study 2, students focus on human activities undertaken in outdoor environments and their impacts. Environmental impacts include both natural and human-induced impacts. These impacts can be positive and/or negative. On outdoor experiences in this unit, and indeed on all outdoor experiences throughout the course, students should be guided to demonstrate environmentally responsible behaviour. Where possible a community-based environmental action, such as tree planting or litter removal, should be undertaken to help demonstrate and promote the positive impact that humans can have on outdoor environments.

Investigating the impact that urbanisation and changing human lifestyles has on outdoor environments provides a good stepping stone into Unit 3 where students are looking at historical relationships with outdoor environments. Students could also explore other impacts of urbanisation such as the impact on animal migration or the heat island effect of urban expansion.

Example activities

AREA OF STUDY 1: Discovering outdoor environments

Outcome 1

Describe the characteristics of different outdoor environments and analyse a range of understandings of these environments, with reference to specific outdoor experiences.

Examples of learning activities

using an environment visited, identify different understandings of that environment; classify these as recreational, scientific, land management, artistic, Indigenous, and historic

divide the class into small groups and give each a specific outdoor environment to study: alpine, marine, coastal, wetlands, grassland, forest, and arid; develop a research assignment to find information on the typical flora, fauna, geography, climatic variations; create a poster or a PowerPoint presentation to present as a group to the rest of the class; posters can be displayed around the room and PowerPoint presentations could be shared on the class blog

on a map of Victoria, mark different types of natural environments, such as box-ironbark forests, alpine regions and riverine wetlands

use concept mapping software such as SmartDraw, Webspiration, Cmaps, Inspiration, MindManager, Mind 42, MindMeister, Mindomo, Bubbl.us or FreeMind to create an interactive concept map of an outdoor environment you have visited; include the biotic and abiotic (living and non-living) components of the environment and a food web on the concept map

select an outdoor environment you have visited and create a table identifying natural changes that occur in that environment; for example, the difference between seasons, day and night, high and low tide or as a result of climate change; describe how these changes affect that specific environment and how they impact on the way people use that environment

visit an art gallery to gain an understanding of how artists respond to outdoor environments; record the time of year/day the artworks were created, the state of the environment in the artwork, for example dry, lush, urban, bush

visit an Indigenous site (or create a PowerPoint presentation of different Indigenous sites if unable to visit) and arrange an Indigenous community member to talk to the class; ask them about their understandings of the outdoor environment, such as season migration, fire, their uses of the environment and management strategies for the environment

to understand different land classifications and the value of the land, invite land managers, including Parks Victoria, private managers and representatives from the local council, to talk to the class; discuss issues raised, create a report and include a table detailing land classifications

Detailed example

LAND MANAGEMENT UNDERSTANDINGS

While on an outdoor experience, arrange for land managers from the area visited to talk to the class. Try and include Parks Victoria, a private land manager and an appropriate person from the local council. For public land ask them to cover topics such as how different areas are zoned and why; different types of park and reserves. For private land, ask them to discuss issues around public use and management laws.

Once back at school, discuss land management, comparing and contrasting the different types of management and the different uses of various areas. Ask students to complete a written analysis of the different types of land management and how different organisations put land management into practice. Include a table in the report detailing land classification; for example:

Class of reserved land	Value of land	Purpose for reservations
National Park	A large natural area of land containing a representative or outstanding sample of major natural regions, features or scenery.	The protection and maintenance of the natural and cultural values of the area of land while providing for ecologically sustainable recreation consistent with conserving those values.

Include other classifications such as State Reserve, Natural Reserve, State Park.

Ask students to conclude their analysis by forming a personal opinion about what land management style is the most effective.

AREA OF STUDY 2: Impacts on outdoor environments

Outcome 2

Evaluate human impacts on outdoor environments and analyse procedures for promoting positive impacts, with reference to specific outdoor experiences.

Examples of learning activities

write reflections in journal while on an outdoor experience about the impacts (both positive and negative) of conservation, commercial and recreational activities in the areas visited; journal entries could be shared on a class or individual blog such as Global Teacher or Global Student; for more information about blogs see Technology A–Z <www.education.vic.gov.au/studentlearning/elearning/technology/blogs.htm>

find an environmental project locally that the class can be a part of; for example, tree planting, cleaning up around a lake/waterway, litter removal programs such as Adopt a Highway or Clean Up Australia Day; reflect upon and analyse why some people don't seem to care for outdoor environments and how this can be remedied

before an outdoor experience, identify the possible impacts that are caused by participation in the chosen activity; determine the possible causes of these impacts; explain what the consequences of these impacts are on outdoor environments and the procedures and practices that should be used to reduce these impacts; present ideas as a poster for the classroom

collect a range of codes of conduct for recreational activities and outdoor education organisations; discuss the variety of ways the different codes of conduct can be used, including as a preventative measure or educational tool

record in journals at the end of each day of practical experience the different technologies they used and saw throughout the day; for example, transport, phone, snow-making equipment; consider both the direct and indirect impacts of each particular technology; when back at school, research one particular technology, looking in particular at the manufacturing process and how that affects outdoor environments, for example mobile phone production and the link to loss of habitat for mountain gorillas in the Congo; present findings to the class with some form of visual presentation

explore the differences between direct and indirect impacts of technology; record the manufacturing process of a product and describe the total impact of production; use the website Patagonia – the Footprint Chronicles <www.patagonia.com/us/footprint> to explore the impact of the manufacture of a number of Patagonia's products

after an outdoor experience, reflect on what minimal impact practices were used during their trip: Was their effort in minimising impact successful? How can they improve this next time? What other practices could they use?

research the history of either a local outdoor area or one visited elsewhere; define what urbanisation means and how it has impacted on and changed the way humans interact with this outdoor area

write a creative piece or create a drawing illustrating an outdoor environment they know well; fast forward 50 years and visualise what that environment would look like and how human interaction with outdoor environments has changed

Detailed example

CODES OF CONDUCT

Ask students to research codes of conduct for recreational activities through visiting organisational websites such as Parks Victoria and the Department of Sustainability and Environment (refer to Resource List). After they have found a number of codes, as a class, list the key features of each code and identify why the codes have been developed.

Also research if there are penalties for breaking codes of conduct and the codes of ethics for a variety of Outdoor Education organisations.

Using a program such as Publisher, students create their own code of conduct for an outdoor

experience. This could be an outdoor experience they have had with school or one they have had privately.

Give them topics they must cover, for example:

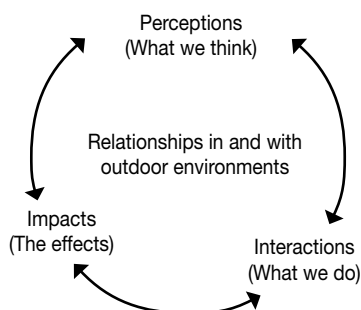
- reasons for restrictions
- ideal group sizes
- seasonal restrictions
- vehicle restrictions
- best practices for the conduct of the activity
- practices that should be avoided.

Unit 3: Relationships with outdoor environments

For Area of Study 1, students focus largely on historical relationships with outdoor environments. These relationships are distinguished through different cultures, different historical issues, and through an examination of rising environmental consciousness.

In order to introduce this unit, the natural history of Australia before human settlement is considered. This provides a foundation for students to have a basic understanding of, and the ability to describe, the uniqueness of Australia's fauna and flora. An appreciation of the key characteristics of Australia's biological isolation, geological stability, and climatic variations, helps students to understand the changes wrought by human's relationship with outdoor environments.

Human–nature relationships are very complex. The following diagram represents a way of beginning a study of relationships with Australian outdoor environments. Perceptions of, interactions with, and impacts on outdoor environments are part of an interconnected understanding of these relationships.



It is important to recognise that Indigenous relationships with Australian environments do not end with non-Indigenous settlement. So, the focus in this area of study is on both the traditional hunter-gatherer societies prior to the arrival of non-Indigenous settlers, and on the relationships and experiences of Indigenous communities since that time. While a more general study of Indigenous relationships is appropriate, teachers should attempt to focus on local Indigenous relationships in relation to places visited.

When studying Indigenous relationships with outdoor environments it is advisable to consult with the local Koorie community. The Victorian Aboriginal Education Association Inc (VAEAI) website provides a list of Local Aboriginal Education Consultative Groups (LAECGs) <www.vaeai.org.au/regions/index.html>. LAECGs are voluntary bodies that are made up of a broad range of local Koorie community members and at the local level play a significant role in providing the important links between Koorie communities and educational institutions.

The arrival of European settlers and their conception that the land was owned or possessed by nobody (*terra nullius*) impacted greatly on Indigenous relationships with the land. Students should investigate these changed relationships. A significant change to this study design is that historical relationships of non-Indigenous Australians with outdoor environments are now explored through a range of key events and issues, rather than general time periods. Students should develop an understanding of the effects of traditions of urban dwellers and people from domesticated rural environments in Europe on Australian outdoor environments, and how their lack of understanding of the local flora, fauna, soils and climate was reflected in their relationships with these environments.

The issues of increasing population, industrialisation, and nation building could be considered across a range of different time periods, allowing scope for teachers to concentrate on events that are appropriate for different places. Increasing population could be tied to the events following the discovery of gold across Victoria, and the pressures placed on outdoor environments as a result of the dramatic increase in immigration. Industrialisation connects neatly with several aspects of a modernising nation and the time period leading up to and directly after Federation could be explored in this section. The need to feed, house, employ, and provide energy and other resources and services to a growing population can be examined, particularly with respect to the impact of this industrialisation on outdoor environments. The concomitant rise in the power of worker's federations and unions, leading to subsequent improvements in incomes, standard of living and leisure time, also had major impacts on the nature of Australian relationships with the outdoors and is appropriate to consider in this unit.

Development and exports dominated the relationship with the land at this time. Governments were interested in 'opening up' the land to settlers for agriculture and grazing, and in timber and mineral reserves. Resource conservation was low on the agenda if it appeared at all. However, Australia's first national park was declared during this period, reflecting some changing perceptions of the Australian environment.

Nation building could be said to be an ongoing process in Australia's non-indigenous settlement. The periods after the first and second World Wars involved major infrastructure developments. Returning soldiers and post-war immigration provided a workforce to help in the construction of roads, dams, farms, and large-scale energy projects, all of which had implications for Australian relationships with outdoor environments.

Students explore the history and role of environmental movements in raising community consciousness and achieving conservation of environments in Australia. The emergence of environmental groups campaigning against a range of environmental threats, and the development of national and international concerns in the 1960s and 1970s, marked another stage in the changing relationships with the Australian environment. Students are to study at least one of the listed organisations as the basis for exploring the role of environmental movements in changing relationships with outdoor environments. It is not expected that students visit environments that were a particular venue for activities of any one of these organisations, but connections to environments visited are always a useful way to link the theory and practice within the study. The purpose of listing and studying at least one of the particular organisations is to emphasise that environmental movements operate beyond the structures of government agencies and departments, and outside the scope of land managers.

For Area of Study 2, students focus on contemporary relationships between humans and outdoor environments. For the purposes of this study, 'contemporary' is understood to refer mainly to events and interactions within the last 10 to 15 years.

Students explore a wide variety of the relationships that people have with outdoor environments. While recreation will likely form a large part of the practical experiences, teachers are also encouraged to help students access other forms of experiences, such as visits to farms and logging coupes, conservation and scientific field trips, bird watching and fishing, and visits to museums and art galleries.

A wide range of factors influence what people do in and with environments, how they think about environments, and the effects they have on environments. These include social, cultural, economic, educational and ethnic backgrounds, as well as technology, media and advertising, commercialisation, risk and responses to risk, and social and political conversations about important issues. Students examine the way some of these factors influence and affect contemporary relationships with outdoor environments.

The ongoing development of new technologies has influenced, and continues to influence, the relationships that Australians have with outdoor environments. Innovations in materials and clothing, communication and navigation, transport and infrastructure, as well as developments and improvements in activity-specific and safety equipment, have all changed the ways that humans experience environments. Students should examine the effects of some of these technologies on both humans, and on the environments in which we use them.

Along with the rise in consumerism in Australian society, has come the rise in commercialised outdoor experiences. People can now buy experiences in outdoor environments, that in the past may have been much more difficult and/or expensive to participate in. Students should examine some of this commercialisation, even participating in examples of commercial experiences if possible.

Outdoor environments, and experiences in them, are portrayed in many different ways, including all variety of media, through music and writing, and in advertising. In film, for example, the environment can often become like another character, affecting and influencing the human characters in some of the same ways that humans affect each other. Students should have access to a wide variety of portrayals of environments and experiences, as well as being given the opportunity to create some of their own portrayals.

Risk is a major issue in many outdoor experiences – especially adventure and recreation – and the ways in which societies respond to risk, and to accidents and incidents, is an important factor in influencing what people do in and with outdoor environments. While an understanding of some issues associated with risk could be useful, students should work to develop a deeper understanding of society's responses to risk.

Case studies of incidents involving individuals and groups can be examined to consider the ways in which people understand and respond to risky experiences. Social responses to risk can include media and public outrage, introduction of rules and regulations, development of infrastructure and new technologies, increases in insurance, and legal responses.

Students examine environmental issues hotly debated in the last few years, and the discourses – or conversations – that society has about these issues. In particular, they analyse the debates and arguments about political intervention in mitigating climate change, managing water resources, and in securing food and other biological resources.

Students develop some familiarity with issues of climate change, water management, and biosecurity; however, the main purpose of examining is to evaluate the discourses about these issues rather than the issues themselves. These discourses include discussions of the importance of these issues, whether we should (or should not) deal with them, and how we might do this.

Example activities

AREA OF STUDY 1: Historical relationships with outdoor environments

Outcome 1

Explain and evaluate how relationships with Australian outdoor environments have changed over time, with reference to specific outdoor experiences.

Examples of learning activities

research the geological and biological features of a particular outdoor environment before human habitation; write a creative piece that describes what it might have been like to be in this early pre-human Australia

research specific adaptations for harsh environments in Australian plant and animal species; how do these adaptations affect a journey through a particular outdoor environment; what are some of the implications of these adaptations for Australian plants and animals in the modern era?

find or create images of the break-up of Gondwana over time, and develop these into an animation

explore the use of metaphors to describe human relationships with outdoor environments; investigate the meaning behind metaphors such as ‘land as a mother’ or ‘nature as a web’; create new metaphors and share these on a discussion forum or social network

investigate Indigenous land practices which affected the flora and fauna of a specific outdoor environment

investigate case studies of relationships with the Australian environment as expressed by Indigenous cultures and contrast with other Indigenous cultures around the world

visit an art gallery in person or online, and analyse how changing relationships with the Australian environment have been portrayed in the work of artists

research the different relationships with Australian environments over time and develop a creative piece that describes the life of someone from a different time period, for example an early settler, or an explorer, or a prospector on the goldfields

reflect on an outdoor experience to analyse how relationships at specific times have influenced a specific outdoor environment; construct a timeline, multimedia presentation or annotated display of changes in relationships with that outdoor environment

investigate aspects of early non-indigenous exploration of the Australian environment such as the experiences and attitude towards the environment, by retracing the path of an early non-indigenous explorer, researching diary records or similar evidence, or reading and analysing personal accounts

read accounts of life on the goldfields and use these to examine relationships with outdoor environments in a time of major population increase

collect photos and images from a major nation building project such as the Great Ocean Road, dams on the Bogong High Plains, or the Snowy River Hydroelectricity Scheme, and produce a multimedia presentation or annotated display that analyses the relationships with outdoor environments that were reflected in the project

research discussions and debates over post-war immigration and compare and contrast these with contemporary discussions over immigration, population, refugees and asylum seekers

while on an outdoor activity, look for examples of historical relationships and compare and contrast these with contemporary relationships studied in Area of Study 2

use the Internet and other sources to investigate the history of an environmental movement in Australia; develop an annotated timeline to illustrate your findings and highlight the key events in the formation of the environmental movement

visit a site of conservation interest which has been preserved through the actions of environmentalists; invite environmentalists to describe formative influences on their lives and their current activities with an environmental group

Detailed example

HISTORICAL RELATIONSHIPS – MULTIMEDIA PRESENTATION

Students select a major nation building event such as the construction of the Great Ocean Road, the Snowy River hydroelectricity scheme, or the development of dams and power stations on the Bogong High Plains.

They collect photographs, maps and other images from the project.

They arrange the visual images and comment upon the relationships with outdoor environments portrayed by the event and in the images.

They could also visit a site of one of these major projects and include their own experiences of the site.

AREA OF STUDY 2: Contemporary relationships with outdoor environments

Outcome 2

Analyse and evaluate the factors influencing contemporary societal relationships with outdoor environments, with reference to specific outdoor experiences.

Examples of learning activities

participate in a bird watching activity at school or while on a practical experience; use a field guide to birds and try to identify as many birds as possible; use these observations of birds to estimate the biodiversity of the environment

visit a farm or a logging coup; discuss with the land managers the ways they relate to the environments they look after

contact a local environmental group and find out about their activities; invite a member of the group to speak about what they do and how they relate to outdoor environments

plan a series of tours – including passive and active recreation activities – of a selected environment; create brochures, advertising and marketing for the tours, and conduct a survey to determine factors that influence people's potential interest in the tours

using historical and contemporary images from the internet, develop a case study of technological changes (and their effects) relating to a specific activity, such as rockclimbing, surfing, or camping; students should analyse the effect of changing technologies on relationships with outdoor environments

undertake an outdoor activity with minimal modern technology (for example, an overnight bushwalk without tents), and another activity with more extensive use of modern technology (for example, using GPS navigation and modern lightweight gear); compare and contrast these activities and the effects of different levels of technology

analyse the role of commercialisation of outdoor experiences, such as lifestyle programs, specialist magazines and packaged adventures, in shaping relationships with outdoor environments

read accounts of mountaineers and climbers accessing remote peaks such as Mt. Everest; do these accounts consider commercialisation of these extreme experiences as changing the nature of these experiences?

collect brochures from companies that provide outdoor experiences and explore how they market the experiences; create a brochure for a mock commercial outdoor experience

describing or responding to a particular environment visited, create a piece of music, paint or draw a picture, or write a story; discuss how this portrayal reflects a relationship with this environment

use a digital camera to record images of or video a particular environment, and explore different ways of using these images: to inform, to sell, to persuade, to challenge, to shock, and so on

analyse and evaluate the ways in which magazines, newspapers and journals use images of outdoor environments and outdoor experiences

develop a case study of the responses to a recent accident or incident that occurred during an outdoor experience

during an outdoor experience, observe and record the measures taken to enhance safety and reduce risk, such as signs, snow pole lines, steps and recreational regulations; discuss how social responses to risk taking influence relationships with outdoor environments and analyse effectiveness of these measures in reducing risk

produce a discussion paper that summarises the arguments that both support and reject the case that humans have created climate change; discuss how differing opinions on the issue of climate change influence contemporary relationships with outdoor environments

role-play a political debate about an environmental issue

Detailed example

TOURISM PLAN

Select a natural environment you have visited.

Develop a variety of mock tours of this environment
– including passive and active recreation, and conservation activities.

Create brochures to inform about and market the mock tours.

Conduct a survey of friends, family, students, teachers and others to determine factors that influence people's interest in the tours.

Analyse factors that influence people's participation in the tours. Discuss how these factors would influence how the tour would be marketed to promote a high level of interest and participation.

Unit 4: Sustainable outdoor relationships

For Area of Study 1, students focus on some of the key characteristics of healthy environments and explore some of the threats to maintaining and sustaining healthy environments.

Sustainability has become a wide ranging term, used in a variety of ways. Students should examine a number of definitions including the Brundtland Commission (from 1987) and more recent analyses of Ecological Footprints.

Sustainable development – or ecologically sustainable development (ESD) – has received criticisms about both the purpose and consequences of the term, concerns over the vagueness and philosophical underpinnings of ESD, and claims that ESD is an oxymoron and therefore a meaningless term. Students should examine some of these criticisms and be able to justify their own positions on the nature and usefulness of the concept of sustainable development.

Students are not expected to conduct scientific measurements of environmental health; however, they should understand indicators of health and be able to make a range of observations of the outdoor environments that they visit. Indicators can be as simple as, ‘were students able to drink water without treatment?’, to more complex understandings of biodiversity.

An understanding of the nature of biodiversity, and the use of levels of biodiversity, as well as weeds, pests and other introduced species is appropriate.

State of the Environment (SOE) reporting occurs across Australia, at local, state and federal levels, as well as internationally. SOE reports are often constructed around a framework of common themes which can include Atmosphere, Biodiversity, Coasts and Oceans, Inland Waters, Land, and Natural and Cultural Heritage. Students should be able to identify and describe some of these (or similar) themes as well as link them to environments that they have visited. It is also appropriate that students examine other environments and be able to identify positive and negative aspects of environmental health across Australia.

The importance of healthy outdoor environments should be explored for both individuals and future societies, with respect to environments students visit. Aspects of this importance might include: aesthetic value, recreation and adventure, intrinsic value, maintenance of environmental stability (including biodiversity), education, economic value, possible future food and medicinal sources, and scientific research.

Outdoor environments across Australia and around the world are threatened by a wide variety of impacts and issues. Older farming practices, industrial pollution and urbanisation lead to land degradation such as dryland soil salinity, soil contamination, and erosion which can threaten agriculture, native habitats, and water resources. Introduced species such as blackberries, English broom, rabbits, foxes and cane toads are having impacts on native species and their habitats. Climate change has the potential for wide ranging impacts on many aspects of human societies and outdoor environments. Students should be able to identify examples of threats, some of the possible causes of these, and a range of potential impacts, as they relate to specific environments visited.

For Area of Study 2, students focus on conflicts of interest over the use of outdoor environments and the approaches taken to manage and sustain healthy environments.

Conflicts occur because different groups of people have different interests in, and beliefs about, the uses of an environment. Students are expected to develop an understanding of a range of conflicts. Apart from the list of conflicts within the key knowledge on page 24, it is suggested that other conflicts explored relate to an outdoor environment visited, or a local environment, or a more contemporary situation. There is a wide variety of such conflicts, including:

- Dredging of Port Phillip Bay
- Sugarloaf pipeline (also known as the North South pipeline)

- Development at Bastion Point
- Wind farm developments, including the Bald Hills project
- Eastern freeway extension
- Development at Wilson’s Promontory
- Logging in the Otway forests
- Excision of Alpine National Park at Mt. McKay
- Ski resort development at Mt. Stirling

Students should evaluate the effectiveness of methods for influencing decision-making in relation to the particular examples of environmental conflicts they study, as well as the application of these methods as general principles. Students should also examine the development of interest groups – especially environmental interest groups – that have arisen as a result of conflicts of interest. Students should become familiar with the processes utilised by decision makers to try to resolve conflicting interests about particular environmental use issues, and evaluate the effectiveness of each process in relation to particular examples of environmental conflicts, as well as their application as general principles.

An understanding of the Victorian Environment Assessment Council (VEAC) and its role in community consultation and decision making about the use of outdoor environments is particularly important. The intention of listing specific management policies in the study design is not meant to limit the scope of study for students, but rather provide a helpful focus for their study. As well as examining the implications and strategies inherent in one of the listed policies, students should examine more general management approaches, including the development and use of management plans for protected areas.

Environmental legislation includes State and Commonwealth legislation, international agreements and treaties, and local policies and plans. The three listed in the study design on page 24 can be supplemented by a study of local policies, or others, including the following:

- *Environment Protection Act 1970* (Vic)
- *National Parks Act 1975* (Vic)
- *Wildlife Act 1975* (Vic)
- *Natural Heritage Trust of Australia Act 1997* (Cwlth)
- *Regional Forest Agreements Act 2002* (Cwlth)
- *Water Act 2007* (Cwlth)
- *Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) 1973* (international convention)
- *Convention on Biological Diversity (CBD) 1992* (international convention)

Green building is the practice of creating structures and using processes that are environmentally responsible and resource-efficient. Some examples of green building practices include: efficiently using energy, water, and other resources; protecting occupant health and improving employee productivity; and reducing waste, pollution and environmental degradation.

Integrated farming is used to explain a more integrated approach to farming as compared to existing monoculture approaches. It refers to agricultural systems that integrate livestock and crop production and can be related to the ‘whole systems approach’ of the permaculture movement. Some integrated farming practices include: urban farming where rooftops and other small urban spaces are utilised for food production; ‘pig tractor’ systems where the animals are confined in crop fields prior to planting and ‘plow’ the field by digging for roots; poultry used in orchards or vineyards after harvest to clear rotten fruit and weeds while fertilising the soil; and recycling of farm nutrients producing fuel, fertiliser and irrigation water.

Urban planning for sustainable environments includes ‘arcology’, unifying the fields of ecology and architecture; and eco-village theory, which emphasises small community-scale development.

Example activities

AREA OF STUDY 1: Healthy outdoor environments

Outcome 1

Evaluate the contemporary state of Australian outdoor environments, and analyse the importance of healthy outdoor environments and sustainability for individuals and society, with reference to specific outdoor experiences.

Examples of learning activities

examine different definitions of sustainability and produce a table that compares and contrasts these definitions

visit a local municipality to discuss its plan and vision for sustainable development of the area's environment

calculate the ecological footprint of a school or household; compare this to the average footprint for Australians, people in other developed nations, and people in developing nations; discuss some of the differences and the implications of these for sustainable use of environments

use a variety of indicators to gauge the health of visited environments and produce a practical report based on the collection of data related to these indicators

conduct a simple biodiversity assessment of a school or other local environment; identify a variety of plant species and look for indicators of birds and other animals

use the Internet to investigate the negative impact of introduced or native species on humans and nature and specific natural environments

construct a state of the environment report for the school or a local environment

make observations about the state of a visited outdoor environment, and compare this with SOE reports about the same environment

conduct a survey about how people interact with outdoor environments; explore the reasons they have for interacting in these ways and the value that they place on outdoor environments

investigate examples of environmental degradation such as erosion, dune destruction, reduced water flow, pollution; evaluate the causes and possible solutions

plan and implement a practical trip that involves travelling from an area of low human impact in the environment to one of high impact; for example, paddling towards an urban area, ski touring into a resort; compare and contrast change and impact of human habitation; focus on the quality of the outdoor environment in each area

develop a case study of an environmental threat, including causes, impacts on society and environments, and possible solutions

explore personal consumption patterns through the use of ecological foot printing software and their contribution to issues such as global warming, species loss and environmental degradation

Detailed example**ECOLOGICAL FOOTPRINT CALCULATIONS**

Use an online (or other) calculator to determine the ecological footprint of a school and/or household.

Compare this to average ecological footprint figures for Australians, people from other developed nations, and people from developing nations.

Discuss some of the differences and implications of these calculations for the prospects of sustainable development.

Determine some changes that could be made to consumption in the school or household to reduce the ecological footprint, and develop a plan to apply some of those changes.

Discuss the difficulty, or otherwise, of reducing ecological footprints across different nations.

AREA OF STUDY 2: Sustainable outdoor environments**Outcome 2**

Analyse conflicts of interest over the use of outdoor environments, and evaluate practices and strategies for sustaining outdoor environments, with reference to specific outdoor experiences.

Examples of learning activities

invite a member of a local environment group, and/or a local Councillor to talk about conflicts in the area, and aspects of their role in these conflicts

read accounts of people involved in conflicts of interest; critique the methods employed for influencing decisions about the conflict: Did they work? Could other methods have been applied more successfully?

identify and investigate a current environmental issue; present arguments for a range of stakeholders involved; debate the issue in class; develop strategies for resolving the issue

identify and discuss methods that interest groups could use to influence governments and the public; evaluate the effectiveness of each method

discuss the processes involved in decision making related to an environmental decision; evaluate the effectiveness of each process

invite a park ranger to discuss management practices on public lands

develop a management plan for a local environment, according to principles of minimal impact and sustainability

examine alternative approaches to management of outdoor environments, such as Indigenous Land Management; examine speculative areas of land management practices such as 'Pleistocene Re-wilding'

after discussion with a land manager, evaluate how the management plan of a venue students have visited reflects local, state and/or national conservation policies

examine the development of environmental legislation; identify debates on legislation in Hansard transcripts and explore the arguments used

use the Internet, journals and other sources to investigate the influence and impact of local, state and national environmental legislation and policies on outdoor environments visited

investigate proposals for renewable energy projects across Australia

visit a green building project, such as the 60L building in Carlton; examine the practices of green building projects that aim to minimise their environmental impact; compare and contrast these practices with those of other buildings such as home or school buildings

invite a specialist in an area of environmental planning to discuss current projects for achieving sustainable environmental relationships

create audio podcasts and videos that explore actions promoting healthy and sustainable environments

visit an organic, permaculture or other sustainable-development farm project, such as the Collingwood Children's Farm or CERES; compare and contrast practices with those of other farms and their ability to achieve stated aims; evaluate the importance of the outdoor environment in urban areas

Detailed example

DEVELOP A MANAGEMENT PLAN

Examine existing management plans of outdoor environments (Parks Victoria have many of these available online).

Using the general structure of existing plans create a management plan for a local environment – perhaps the school grounds, or a local park.

Include practices and action statements that develop principles of minimal impact and sustainability in the management of the environment.

Discuss the management plan with existing managers of the environment and compare it with the plans that they use.