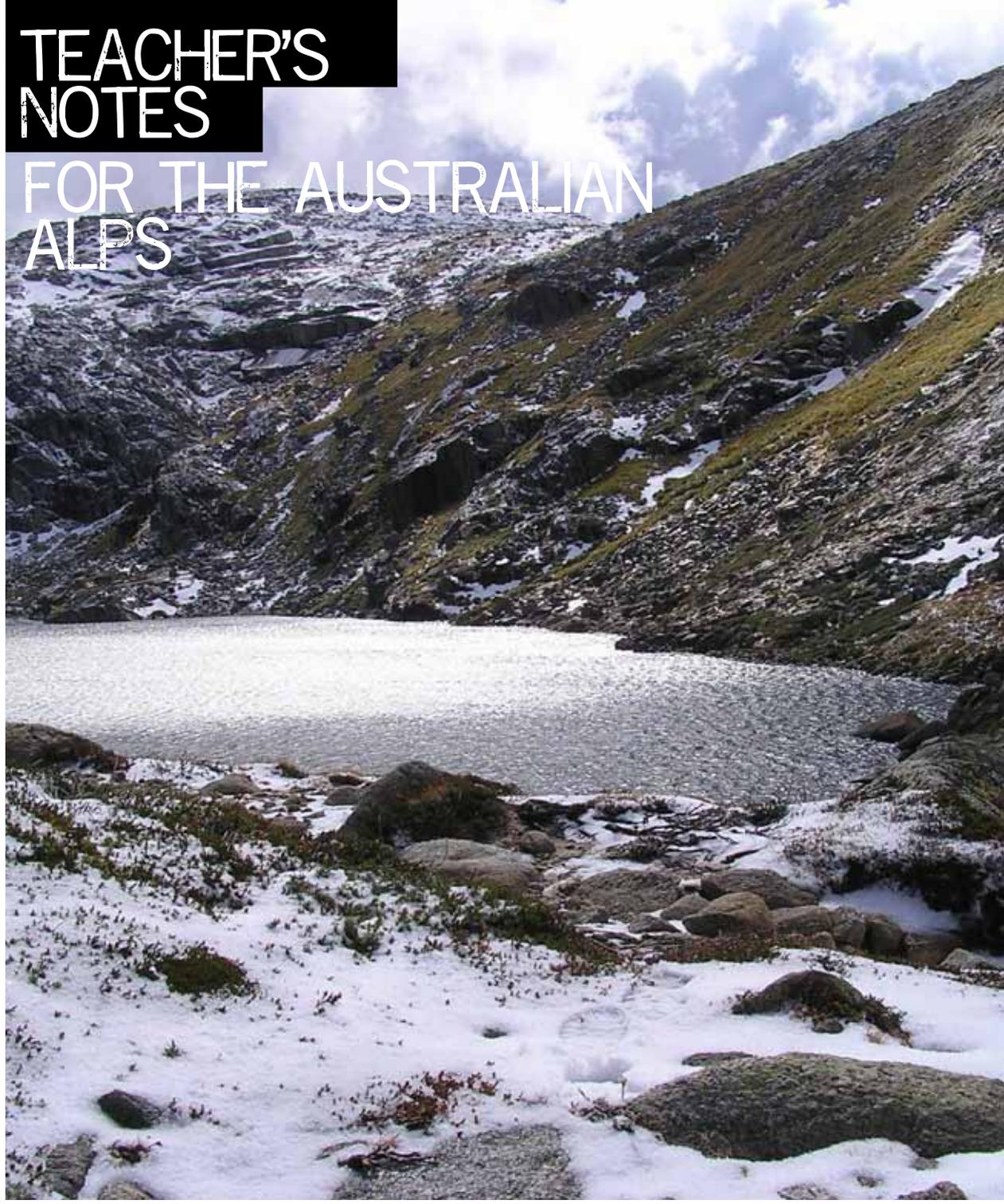


TEACHER'S NOTES

FOR THE AUSTRALIAN ALPS



The Australian Alps, in all their richness, complexity and power to engage, are presented here as a resource for secondary students and their teachers who are studying...

- Aboriginal Studies
- Geography
- Australian History
- Biology
- Tourism
- Outdoor and Environmental Science

...with resources grouped within a series of facts sheets on soils, climate, vegetation, fauna, fire, Aboriginal people, mining, grazing, water catchment recreation and tourism, conservation.

This is an education resource catering for the curriculum needs of students at Year 7 through 12, across New South Wales, the Australian Capital Territory and Victoria. The following snapshots show the Australian Alps as an effective focus for study.

- The alpine and sub-alpine terrain in Australia is extremely small, unique and highly valued as a water supply as well as for its environmental, cultural, historic and recreational significance.
- Most of the Australian Alps lie within national parks with state and federal governments working cooperatively to manage these reserves as one bio-geographical area.
- Climate, landforms and soils vary as altitude increases and so create a variety of environments where different plants grow together in communities. These in turn provide habitats for a wide range of wildlife. Many of these plants and animals are found nowhere else in the world and some are considered threatened or endangered.
- The Alps reflect a history of diverse uses and connections including Aboriginal occupation, European exploration, grazing, mining, timber saw milling, water harvesting, conservation, recreation and tourism. Retaining links with this past is an important part of managing the region.

BEHIND THIS WEBSITE

Developed by the Australian Alps Liaison Committee, this website aims to help increase awareness of the Australian Alps, a bioregion which extends from the Brindabella Range in the Australian Capital Territory, through the Snowy Mountains of New South Wales and across the Victorian Alps.

The national parks within this region include: Namadgi National Park and Tidbinbilla Nature Reserve in the Australian Capital Territory; Kosciuszko National Park, Brindabella National Park, Scabby Range Nature Reserve, and Bimberi Nature Reserve in New South Wales; and the Alpine National Park, Snowy River National Park, Avon Wilderness, Mt Buffalo National Park, and Baw Baw National Park in Victoria.

The Australian Alps Liaison Committee comprises government representatives from ACT, NSW, Victorian and the Australian Government. The Committee co-ordinates programs as identified under the Australian Alps national parks' Memorandum of Understanding (MOU).

Australian Capital Territory curriculum

Year 7 to 10 Across Curriculum Perspective: Aboriginal Education and Torres Strait Islander Education

The Arts: Examine Aboriginal artworks within the Australian Alps and talk with local Aboriginal people about artworks within the Australian Alps.

English language: Explore the oral traditions of Aboriginal people and their links with the Australian Alps by organising speakers to the school. Examine Aboriginal writing and writers that discuss the Australian Alps and research how Australian writers have considered Aboriginal issues. Health and Physical Development: Examine the types of food resources that Aboriginal people gained from the Australian Alps.

LOTE: Explore and learn different words that Aboriginal people used for elements of the Australian Alps.

Mathematics: To increase spatial awareness, examine how Aboriginal people understood the relationships between seasons, directions, temperature and the sun in the Australian Alps to enhance special awareness. Build a timeline of known events associating Aboriginal people with the Australian Alps.

Science: Research methods used to prepare food, such as Bogong Moths.

Studies of Society and Environment: Explore the relationship that different Aboriginal people had and have with the Australian Alps. Examine how Aboriginal people's artwork in the Australian Alps reflects the relationship that they had and have with the Australian Alps.

Technology: Examine the aesthetic and functional use of everyday natural source material of Aboriginal people in the Australian Alps.

Year 7 to 10 Studies of Society and Environment: Natural and social systems

Describe and analyse natural changes that have taken place in the Australian Alps over time.

Year 7 to 10 Studies of Society and Environment: Time, continuity and change

Examine the history of the Snowy Mountain Scheme and identify how it contributed to the Australian identity and to identity change. Consider heritage and tradition of the Australian Alps and identify what is and has been valued from the past by different groups and people at different times.

Year 11 and 12 History A Unit: Contemporary Australia

Examine the development of the Snowy Mountains Scheme and provide a description of the technological and social changes that took place as a result of the Scheme.

Unit: Australian History Research Unit

Investigate the development of the Australian Alps national park (or a park within the Australian Alps, such as Tidbinbilla Nature Reserve) and identify historic, cultural, environmental, social and political changes that have taken place over time.

Year 11 and 12 Biology

Unit: Interdependence - Nature of ecosystems and relationships existing within them

Investigate sub-alpine and alpine ecosystems in terms of the physical environment, and plant and animal communities. Describe the relationships that exist within these ecosystems.

Unit: Human impact - Human interactions with the environment; conservation, recycling and pollution

Investigate the human interactions that take place in alpine areas of the Australian Alps and identify the significance of these interactions.

Year 11 and 12 Geography A/T course- Unit: Australia's biophysical environment

Develop an Australian Alps case study describing the biophysical features (atmosphere, climate, landforms, drainage, fauna, vegetation and soils), impacts on the Alps' natural resources and management strategies for the conservation of these natural resources.

Unit: Earth in action

Investigate the Australian Alps or a specific area within the Australian Alps, in terms of its landform characteristics, water catchment and drainage. Describe any climatic changes, weathering processes, changes in soil and vegetation over time. Identify ways in which people, over time, have used and/or changed the Australian Alps and describe steps that have been taken to reduce impacts.

Unit: Tourism perspective

Examine tourism in the Australian Alps, identifying the geographical features and factors that determine the nature of tourism in the Alps, the environmental, social, cultural and economic issues associated with tourism in the Australian Alps and the management decisions that have been undertaken to reduce the impacts of tourism.

Unit: Fragile ecosystems

Analyse ecosystems within the Australian Alps national parks and describe the classification, productivity, factors affecting the functioning of the ecosystems, impacts due to natural stress and impacts due to human factors.

Study and describe the ecosystems of the Australian Alps and discuss the reasons for the protection of ecosystems.

Unit: Geographic research project

A number of issues arise from the Australian Alps' complex uses. Consider one or more of these issues and through research, field studies and analysis of data (such as maps, graphs, statistics, interviews and photographs) discuss the issue in relation to biophysical and social changes and impacts.

Year 11 and 12 Outdoor Education

Outdoor Education A and T/Vocational

Several units of work within the Outdoor Education course could be conducted through field work in the Australian Alps national parks including bushwalking leadership, downhill skiing, snowboarding, cross country skiing, back country skiing, snow: environment and recreation, caves, cliffs and canyons and the bush recreation and environment units.

Unit: Field Studies in Natural History

Through a field study to alpine and sub-alpine areas within the Australian Alps, record observations and describe selected habitats and any human impact on these habitats. Record and recommend any minimum impact conservation measures observed or required.

Year 11 and 12 Tourism

Use the Australian Alps, or an area within the Australian Alps, to: research and document the sources and destination information required, including general product information, about the Australian Alps; gather, analyse and access specific tourism product information about the Australian Alps; research information on the Australian Alps for presentation to customers; outline the need for on going research to update and expand the knowledge that a guide in the Australian Alps would require. For example, investigate an area within the Australian Alps - e.g. Namadgi National Park or Tidbinbilla Nature Reserve - and document information that is required to respond to general customer information requests. Access and interpret information on current activities, to provide assistance to customers and promote the attraction.

New South Wales curriculum

Year 7 to 10 Aboriginal Studies

Stage 4: Investigate the ways that Aboriginal people interact with the Australian Alps over time.

Stage 5: Describe the relationships Aboriginal people have with the Australian Alps.

Year 7 to 10 Geography (Elective and Mandatory)

Mandatory, Stage 4: Identify and gather geographical information about the Australian Alps.

Mandatory, Stage 4: Examine and discuss the geographical processes that have formed and transformed the Australian Alps.

Year 7 to 10 History (Elective and Mandatory)

Stage 4: Identify through research, significant features of Aboriginal culture in the Australian Alps prior to colonisation. Stage 5: Trace the history of cattlemen in the Australian Alps and the changes that have taken place as a consequence of changes to land management.

Year 11 and 12 Geography – Ecosystem at Risk

The Australian Alps provides an example of an ecosystem for a case study of an ecosystem 'at risk'. It could also be the subject for a senior geography project. The case study requires the identification of alpine characteristics including: spatial patterns and dimensions (location, altitude, latitude, size, shape and continuity); interaction of the four spheres (atmosphere, lithosphere, hydrosphere and biosphere) the dynamics of weather and climate; bio-geographical processes (invasion, succession, modification, resilience, adjustments in response to natural stress); the nature and rate of change which affects ecosystem functioning; human impacts (both positive and negative); and traditional and contemporary management practices.

Year 11 and 12 Aboriginal Studies Unit: Heritage and identity

Research and develop understandings about the connections that a specific Aboriginal group has with the Australian Alps. This can be achieved through interviews, web searches, examination of artwork and written documentation. Document broader aspects of Aboriginal heritage and identity including relationships with land, ownership of culture, history and knowledge. Identify and discuss the influences and impacts on identity over time.

Year 11 and 12 Tourism

Use the Australian Alps, or an area within the Australian Alps, to: research and document the sources and destination information required, including general product information, about the Australian Alps; gather, analyse and access specific tourism product information about the Australian Alps; research information on the Australian Alps for presentation to customers; outline the need for on going research to update and expand the knowledge that a guide in the Australian Alps would require. For example, investigate an area within the Australian Alps and document information that is required to respond to general customer information requests. Access and interpret information on current activities, to provide assistance to customers and promote the attraction.

Victorian curriculum

Year 7 to 10 Geography, Studies of Society and Environment,

(Level 5, 5.1) Compare the characteristics of the Australian Alps with those of another alpine region in another part of the world. Describe, compare and contrast physical characteristics, and present maps and statistics as part of the analysis explaining why these alpine areas exhibit certain characteristics.

(Level 6, 6.4) Develop a comprehensive strategy to resolve an issue relating to the use and management of the Australian Alps.

Year 11 and 12 Australian History Unit: Koorie History

Trace the changes and continuities in Koorie relationships with land in the Australian Alps.

Year 11 and 12 Geography Unit: Place and change

Document the geographical characteristics of the Australian Alps. Drawing from a number of different information and data sources, describe changes that have taken place in the Australian Alps as a result of natural processes and human processes.

Year 11 & 12 Outdoor and Environmental Science

Unit: Environmental impacts

Research and collect information from a variety of sources about the Australian Alps (or an area within the Australian Alps) that illustrate and document the variety of outdoor experiences that are possible. Analyse motivations for seeking outdoor experiences, the technology required, commercialisation of experiences, impacts on human and natural resources and ways in which risk can be reduced when undertaking specific outdoor experiences.

Unit: Relationships with outdoor environments

Investigate the relationship between the Australian Alps (or an area within the Australian Alps) and different peoples' experience over time. Consider the Alps prior to or without human habitation and various outdoor experiences in the Australian Alps, including Aboriginal people, European settlers and modern outdoor experiences. Discuss the impacts, perceptions and changes that have taken place with outdoor environment.

Unit: The future of natural environments

Investigate the conflicts of interests that are evident within the Australian Alps (or an area within the Australian Alps), such as tourism and nature conservation, and the different strategies and management plans that have been put in place to respond to these interests. Document the importance of these interests to individuals, society, organisations or specific groups. Examine different ways that other parks and conservation areas in Australia and other parts of the world have responded to competing interests.

For teachers

Australian Alps national parks: <http://www.australianalps.deh.gov.au/>
Climate Change and Energy Efficiency: <http://www.climatechange.gov.au/>
Australian Heritage Council: <http://www.environment.gov.au/heritage/ahc/index.html>
Australian National Botanic Garden: <http://www.anbg.gov.au/gardens/index.html>
Sustainability, Environment, Water, Population and Communities: <http://www.environment.gov.au>
Geoscience Australia: <http://www.ga.gov.au/> <http://www.ga.gov.au/education/facts/landforms/space.htm>
<http://www.ga.gov.au/education/facts/landforms/highmntns.htm>.
Australian Museum Online: <http://australianmuseum.net.au/>

Australian Capital Territory

Environment ACT: <http://www.environment.act.gov.au/>
Environment ACT: <http://www.cmd.act.gov.au/>

New South Wales

NSW National Parks and Wildlife Service: <http://www.environment.nsw.gov.au/NationalParks/>
Kosciuszko Huts Association: <http://www.khuts.org/>

Victoria

Parks Victoria: <http://www.parkweb.vic.gov.au/>
Department of Sustainability and Environment (Victoria): <http://www.dse.vic.gov.au/dse/index.htm>
Victorian High Country Huts Association: <http://hutsvictoria.org.au/cms/>
Victorian National Parks Association: <http://www.vnpa.org.au/>

Data bases

Australian Biological Resources Study Flora Online
<http://www.environment.gov.au/biodiversity/abrs/online-resources/flora/index.html>
Australian Plant Name Index (APNI)
<http://www.cpbr.gov.au/apni/index.html>
Australian plant common name database
<http://www.anbg.gov.au/common.names/>
Integrated botanical information system
<http://www.anbg.gov.au/ibis/speciesLinks.html>
What's Its Name (WIN)
<http://www.anbg.gov.au/win/index.html>

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