GREAT OCEAN ROAD
COAST COMMITTEE

LEVELS 9 & 10: SCIENCE & GEOGRAPHY VICTORIAN CURRICULUM LINKS

Science	Victorian Curriculum Elaborations related to activity
Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems (VCSSU121)	• exploring interactions between organisms, for example, predator/prey, parasites, competitors, pollinators and disease vectors • using modelling to examine factors that affect population sizes, for example, seasonal changes, destruction of habitats, introduced species • investigating how ecosystems change as a result of environmental change, for example, bushfires, drought and flooding
Geography	**Victorian Curriculum Elaborations related to activity**
Predict changes in the characteristics of places over time and identify the possible implications of change for the future (VCGGC127)	• researching the potential of agricultural production in northern Australia • discussing the effects of people's cultural and leisure choices on towns and cities or heritage areas. For example, predicting how changing choices may affect these and other places in the future • evaluating the effects of international demand for food products on biodiversity throughout the world, in the places of their production • identifying trends in human wellbeing in countries over time
Identify, analyse and explain significant spatial distributions and patterns and identify and evaluate their implications, over time and at different scales (VCGGC128)	• proposing geographical management strategies for the environmental change being investigated, for example, establishing reserves and corridors to preserve biodiversity (a spatial strategy), ecosystem based management (an environmental strategy), urban planning to reduce energy consumption (a spatial strategy), and addressing the underlying as well as immediate causes of environmental change (holistic thinking)
Identify, analyse and explain significant interconnections within places and between places over time and at different scales, and evaluate the resulting changes and further consequences (VCGGC129)	• using the concept of a system to examine the interconnections between biophysical processes and the human actions, and their underlying causes, that generate environmental change, together with the consequences of these changes • identifying the biomes in Australia and overseas that produce some of the foods and plant material people consume and ways that the production of food and fibre has altered some biomes through, for example, vegetation clearance • examining how a person's wellbeing is influenced by where they live, with reference to at least two different scales in a country of the Asia region

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Distribution and characteristics of biomes as regions with distinctive climates, soils, vegetation and productivity (VCGGK133)	• identifying and describing the major aquatic and terrestrial biomes of Australia and the world, and their spatial distribution • examining the influence of climate on biomass production (as measured by net primary productivity) in different biomes
Human alteration of biomes to produce food, industrial materials and fibres, and the environmental effects of these alterations (VCGGK136)	• identifying the biomes in Australia and overseas that produce some of the foods and plant material people consume • investigating ways that the production of food and fibre has altered some biomes through, for example, vegetation clearance, introduction of exotic species, drainage, terracing and irrigation • using the concept of a system to identify the differences between natural and agricultural ecosystems in flows of nutrients and water, and in biodiversity
Land and resource management strategies used by Aboriginal or Torres Strait Islander peoples to achieve food security over time (VCGGK137)	• investigating the knowledge and practices of Aboriginal and Torres Strait Islander peoples that enabled them to use resources and environments sustainably (such as rotational use and harvesting of resources through planned movement, controlled burning, temporary or permanent prohibitions on hunting animals and harvesting plants, and limitations on harvesting) and how some of this knowledge is currently shared among Aboriginal and Torres Strait Islander peoples and also with non-Aboriginal and Torres Strait Islander peoples • investigating the impacts of alterations of biomes on the productivity and availability of staple resources for Aboriginal and Torres Strait Islander peoples, for example, the Murnong (yam daisy) in Victoria
Perceptions people have of place, and how this influences their connections to different places (VCGGK139)	• comparing people's perception and use of places and spaces in their local area, such as different age groups • investigating how people in places in other countries perceive, use and are connected to their place and space
Effects of people's travel, recreational, cultural or leisure choices on places, and the implications for the future of these places (VCGGK143)	• investigating the global growth of tourism and its likely effects on the future of places • discussing the effects of people's cultural and leisure choices on towns and cities or heritage areas. For example, predicting how changing choices may affect these and other places in the future

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Different types and distribution of environmental changes and the forms it takes in different places (VCGGK144)	• creating a map to show measures of environmental change, using a spatial technologies application • examining spatial data and information on desertification affecting drylands • describing and analysing a global map showing access to safe water and investigating differences in water pollution in different places
Environmental, economic and technological factors that influence environmental change and human responses to its management (VCGGK145)	• identifying human-induced environmental changes, such as water and atmospheric pollution, loss of biodiversity, degradation of land, inland and coastal aquatic environments, and evaluating the challenges they pose for the sustainability of environmental functions • evaluating the concept of ecosystem services and the importance of these services for sustainability of biodiversity • discussing whether environmental change is necessarily a problem that should be managed • proposing geographical management strategies for the environmental change being investigated, for example, establishing reserves and corridors to preserve biodiversity (a spatial strategy), ecosystem based management (an environmental strategy), urban planning to reduce energy consumption (a spatial strategy), & addressing the underlying as well as immediate causes of environmental change (holistic thinking)
Environmental worldviews of people and their implications for environmental management (VCGGK146)	• describing the role of people's environmental worldviews, for example, human-centred and earth-centred, in producing different attitudes and approaches towards environmental management • comparing the differences in people's views about the causes of environmental issues in Australia & across the world explaining people's choices of methods for managing or responding to environmental changes • discussing the influence of people's world views on programs for the management of the environmental change being investigated
Causes and consequences of an environmental change, comparing examples from Australia and at least one other country (VCGGK147)	• using the concept of a system to examine the interconnections between biophysical processes and the human actions, and their underlying causes, that generate environmental change, together with the consequences of these changes • evaluating the effects of the environmental change on the sustainability of the environment
Aboriginal and Torres Strait Islander peoples' approaches to custodial responsibility and environmental management in different regions of Australia (VCGGK148)	• researching the role of Aboriginal and Torres Strait Islander peoples in environmental management • explaining Aboriginal and Torres Strait Islander models of sustainability that contribute to broader conservation practices • discussing why land management agencies are working with Traditional Owners to manage environmental change and challenges