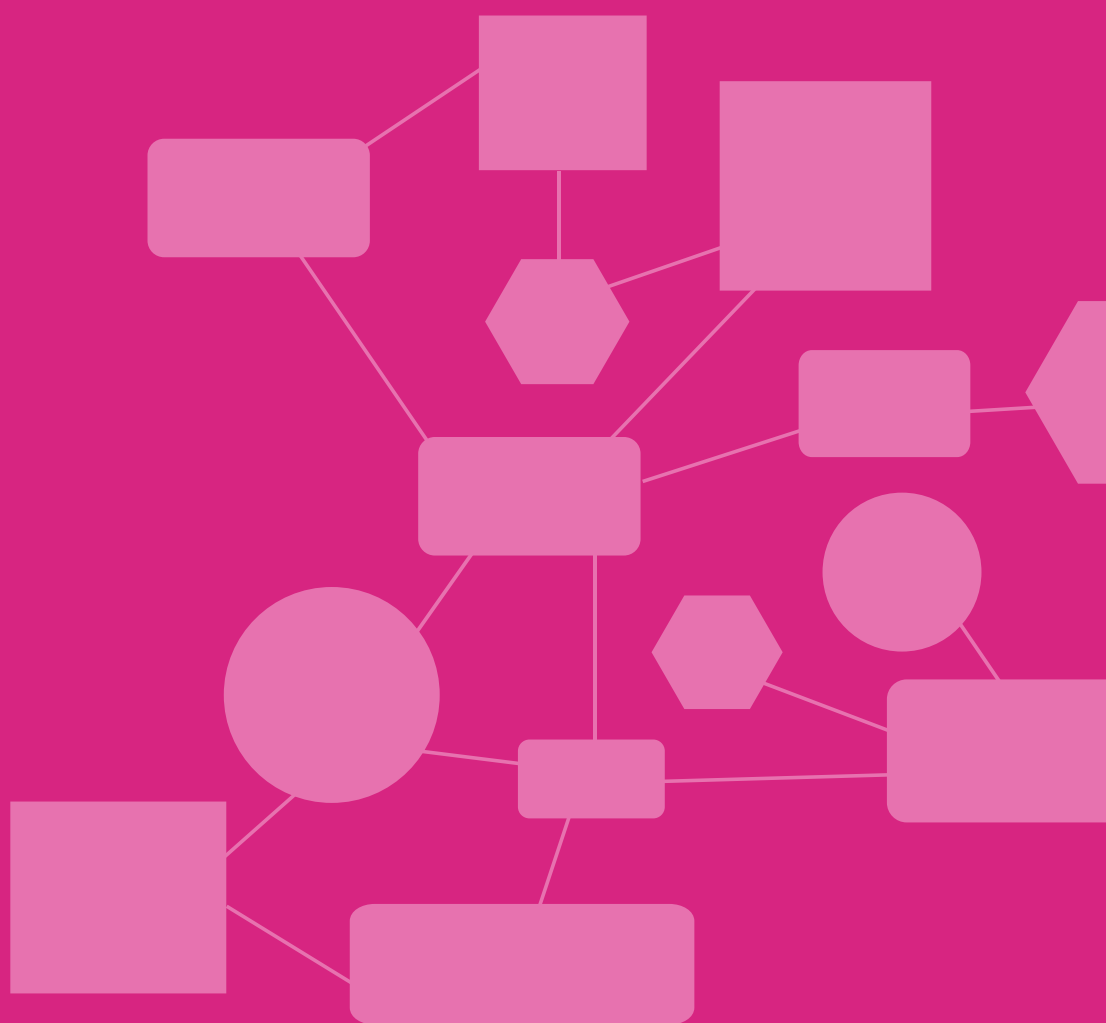


Victorian Certificate of Education



GEOGRAPHY

STUDY DESIGN



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Important information

Accreditation period

Units 1–4: 1 January 2016 – 31 December 2021

Implementation of this study commences in January 2016.

Sources of information

The [VCAA Bulletin](#) is the only official source of changes to regulations and accredited studies. The *VCAA Bulletin* also regularly includes advice on VCE studies. It is the responsibility of each VCE teacher to refer to each issue of the *VCAA Bulletin*. The *VCAA Bulletin* is available as an e-newsletter via free subscription on the VCAA's website at: www.vcaa.vic.edu.au.

To assist teachers in developing courses, the VCAA publishes online the *Advice for teachers*, which includes teaching and learning activities for Units 1–4, and advice on assessment tasks and performance level descriptors for School-assessed Coursework in Units 3 and 4.

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.

Copyright

VCE schools may reproduce parts of this study design for use by teachers. The full VCAA Copyright Policy is available at: www.vcaa.vic.edu.au/Footer/Pages/Copyright.aspx.

Introduction

Scope of study

The study of Geography is a structured way of exploring, analysing and understanding the characteristics of places that make up our world. Geographers are interested in key questions concerning places and geographic phenomena: What is there? Where is it? Why is it there? What are the effects of it being there? How is it changing over time and how could, and should, it change in the future? How is it different from other places and phenomena? How are places and phenomena connected?

Students explore these questions through fieldwork and investigation of a wide range of secondary sources. These methods underpin the development of a unique framework for understanding the world, enabling students to appreciate its complexity, the diversity and interactions of its environments, economies and cultures, and the processes that helped form and transform them.

Ten key geographic concepts underpin the study – place, scale, distance, distribution, movement, region, process, change, spatial association and sustainability ([see page 9](#)). These concepts are used in the exploration of each area of study to assist in the observation, description, interpretation and analysis and explanation of geographic phenomena. VCE Geography is designed around two key themes: interconnection and change. Human interaction with environments has had, and continues to have, significant consequences. In Units 1 and 2 students gain an understanding of how and why this interaction takes place and why it matters. The units focus on the two distinct contexts of hazards and tourism to highlight different kinds of interconnections and their consequences. Change in geographic phenomena produces issues that in turn produce further challenges. In Units 3 and 4 students examine how and why a broad range of geographic phenomena change and the processes that drive this change. They explore the resulting issues and challenges and possible responses.

Rationale

VCE Geography enables students to examine natural and human phenomena, how and why they change, their interconnections and the patterns they form across the Earth's surface. In doing so, they develop a better understanding of their own place and its spaces and those in other parts of the world. These spatial perspectives, when integrated with historical, economic, ecological and cultural perspectives, deepen understanding of places, environments and human interactions with these.

In VCE Geography students develop a range of skills, many of which employ spatial and digital technologies. Investigative skills develop students' ability to conduct geographic study and inquiry including the collection of primary data through observation, surveys, fieldwork, and the collection of data and information from relevant secondary sources. Interpretative and analytical skills enable students to interpret information presented in a variety of formats including maps, graphs, diagrams and images. These skills encourage students to critically evaluate information for its validity and reliability. Presentation and communication skills enable students to communicate their knowledge and understanding in a coherent, creative and effective manner, with the use of appropriate geographic terminology.

Aims

This study enables students to:

- develop a sense of wonder and curiosity about people, culture and environments throughout the world
- develop knowledge and understanding of geographic phenomena at a range of temporal and spatial scales
- understand and apply geographic concepts including place, scale, distance, distribution, movement, region, process, change, spatial association and sustainability to develop their ability to think and communicate geographically

- develop an understanding of the complexity of natural and human induced geographic phenomena across the Earth's surface
- develop a range of skills to assist in analysing information and making informed judgments and decisions about geographic challenges
- understand the importance of Geography in analysing issues and challenges to human welfare and the environment, at a range of scales
- develop an understanding of the role and application of Geography in the planning and management of human welfare and the environment.

Structure

The study is made up of four units:

Unit 1: Hazards and disasters

Unit 2: Tourism

Unit 3: Changing the land

Unit 4: Human population – trends and issues

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 over the duration of a semester.

Changes to the study design

During its period of accreditation minor changes to the study will be announced in the [VCAA Bulletin](#). The *VCAA Bulletin* is the only source of changes to regulations and accredited studies. It is the responsibility of each VCE teacher to monitor changes and advice about VCE studies published in the *VCAA Bulletin*.

Monitoring for quality

As part of ongoing monitoring and quality assurance, the VCAA will periodically undertake an audit of VCE Geography 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.

During the course of this study students undertake primary research that may involve human participants. The following are important to consider for the study of VCE Geography:

- adhering to any protocols for consultation with groups, including Aboriginal and Torres Strait Islander communities
- treating participants with respect
- putting methods in place to prevent harm to participants
- establishing informed consent procedures, including making explicit the purpose, nature and implications of the study
- ensuring participants are aware of their rights, including voluntary participation and withdrawal rights
- ensuring the confidentiality and/or anonymity of participants
- reporting results honestly
- debriefing participants and making the results available to the participants.

The Commonwealth Office of the Privacy Commissioner at www.privacy.gov.au is an information and advice portal, and includes information on privacy principles and the Privacy Act. Contact the Victorian Aboriginal Education Association Incorporated (VAEAI) for Aboriginal and Torres Strait Islander protocols at www.vaeai.org.au/ and Faith Communities Council of Victoria at www.faithvictoria.org.au for protocols regarding religious groups.

Employability skills

This study offers a number of opportunities for students to develop employability skills. The *Advice for teachers* 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 *Privacy and Data Protection Act 2014* 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 the teacher's decision that the student has demonstrated achievement of the set of outcomes specified for the unit. Demonstration of achievement of outcomes and satisfactory completion of a unit are determined by evidence gained through the assessment of a range of learning activities and tasks.

Teachers must develop courses that provide appropriate opportunities for students to demonstrate satisfactory achievement of outcomes.

The decision about satisfactory completion of a unit is distinct from the assessment of levels of achievement. Schools will report a student's result for each unit to the VCAA as S (Satisfactory) or N (Not Satisfactory).

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 VCAA. Schools may choose to report levels of achievement using grades, descriptive statements or other indicators.

Units 3 and 4

The VCAA specifies the assessment procedures for students undertaking scored assessment in Units 3 and 4. Designated assessment tasks are provided in the details for each unit in the VCE study designs.

The student's level of achievement in Units 3 and 4 will be determined by School-assessed Coursework (SACs) and/or School-assessed Tasks (SATs) as specified in the VCE study designs, and external assessment.

The VCAA will report the student's level of achievement on each assessment component as a grade from A+ to E or UG (ungraded). To receive a study score the student 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 Geography 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.

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.

Cross-study specifications

This section contains information on the underpinning organising ideas of the study.

1. Key geographical concepts
2. Geographical skills
3. Fieldwork report

1. Key geographical concepts

Ten key geographical concepts underpin VCE Geography. Teachers should ensure that when undertaking the units students develop the ability to select, use and apply the following concepts to assist in their observations, descriptions, interpretations, analyses and explanations of phenomena.

Change

Phenomena studied geographically are dynamic. Change can occur at varying rates, at different times, over varying durations, and at different scales. Change may be unevenly distributed and therefore affects the spatial patterns, geographic features and the use of places differently. Understanding phenomena can involve investigating change that has led to the development of the phenomena, recent observable change, and predicting change into the future, which may identify what would be needed to achieve preferred futures.

Distance

Distance may be considered in several ways. Absolute or linear distance is measured in units such as metres and kilometres. Relative distance considers other factors, for example the length of time it takes to travel from one location to another, the costs involved, or the convenience of the journey. Psychological distance refers to the way people perceive distance; for example, as familiarity with a place increases, it seems closer, while less familiar places seem more distant. Cultural distance relates to the degree of similarity or difference in attitudes and social norms; for example, countries such as Australia and the United Kingdom are distant in absolute terms, but may be perceived as close in terms of cultural distance.

Distribution

Distribution is the arrangement of phenomena in space or time. Both the factors affecting these, and the effects distributions have on other phenomena are investigated. Spatially, geographers identify distribution patterns, for example in the organisation/arrangements/densities of phenomena. Examples of distributions include the range of vegetation type, population numbers across a region, or types of land-uses. In Geography, temporal distributions can also be investigated, for example, the frequency of natural disasters over a period of time.

Movement

Movement is the change or expansion in location of one or more phenomena from its original location to a new location. The concept of movement includes consideration of its nature, distance, direction, method, frequency, volume and magnitude. Flows showing direction and/or quantity of movement can be mapped and analysed. Movement may, for example, involve flows of water, air, goods and people, or the transmission of ideas, energy and disease.

Place

Places are parts of the Earth's surface that are identified and given meaning by people. They may be perceived, experienced, understood and valued differently. They range in size from a part of a room or garden to a major world region. They can be described by their location, shape, boundaries, features and environmental and human

characteristics. Some characteristics are tangible, for example landforms and people, while others are intangible, for example, scenic quality and culture. Each place is unique in its characteristics. As a consequence, the outcomes of similar environmental and socioeconomic processes vary in different places, and similar problems may require different strategies in different places. Places can be identified by their absolute or relative locations. Absolute location refers to a specific point on the Earth's surface expressed by co-ordinates, such as latitude and longitude. Relative location is expressed as a distance and direction from one place to another.

Process

A process is an identifiable series of actions or steps leading to change or preservation of phenomena, or which assist in developing an understanding of what creates, changes and sustains phenomena. Examples of processes are erosion, atmospheric and ocean circulation, disease transmission, urban development and globalisation. Humans influence the rates and distribution of processes.

Region

Region is a definable area of the Earth's surface that contains one or more common characteristics that distinguish it from neighbouring areas. Regions are based on selected common characteristics and defined at different scales; for example, the intertidal region of a coastal place, a suburb such as Frankston (local), Gippsland (within a state), the Australian Alps of Victoria and New South Wales (within a country) or South-east Asia (extending over a number of countries). Geographers use region to identify a context, to differentiate characteristics and to aid decision-making.

Scale

Scale has two related meanings in geography: map scale and observational scale. Map scale shows the relationship between measurements on a map and the actual measurements on the ground. Observational scale is conceptual and refers to the relative size of phenomena and to the size of the area or areas being studied – local, regional, national, international and global. This concept of scale is used to analyse phenomena and look for explanations at different spatial levels. Different factors can be involved in explaining phenomena at different scales, for example, in studies of vegetation, climate is the main factor at the global scale but soil and drainage may be the main factors at the local scale. Deciding on the appropriate scale for an inquiry is therefore important. Scale is also involved when seeking explanations or outcomes at different levels. Local events can have global outcomes, for example the effects of local actions such as local carbon dioxide production on global climate. National and regional changes can also have local outcomes, as in the effects of economic policies on local economies. Scale, however, may be perceived differently by diverse groups of people and organisations and can be used to elevate or diminish the significance of an issue, for example, by labelling it as local or global.

Spatial association

Spatial association is the degree to which two or more phenomena are similarly arranged over space. Spatial association compares distribution patterns and the interconnections between them; for example, the distribution of high altitude and vegetation communities such as alpine tundra. A strong spatial association occurs where the distribution of two phenomena are very similar. On the contrary, weak spatial associations mean there is little similarity between the distribution of phenomena. Geographers can also identify association in a numerical sense, where a relationship can be seen between two measured quantities; for example, life expectancy and measures of wealth, which are then applied to places and regions.

Sustainability

Sustainability is the capacity of the environment to continue to support life. The consideration of sustainability is used to frame questions, evaluate the findings of investigations, guide decisions and plan actions about environments, places and communities. An understanding of sustainability involves a study of the environmental processes that may produce degradation of an environmental function; the human actions that may have initiated these processes; and the attitudinal, demographic, social, economic and political causes of these human actions.

2. Geographical skills

The table below identifies skills to be incorporated into learning across Units 1–4.

Skill	Description	Unit application			
		1	2	3	4
Block diagrams, digital terrain models/ landscape visualisation	Analyse and annotate block diagrams of landscapes to illustrate understanding of features and processes	•		•	
	Interpret time series block diagrams that demonstrate change	•		•	
	Use an online three-dimensional landscape visualisation tool (e.g. Google Earth) in conjunction with maps to investigate representations of topography in two- and three-dimensions	•		•	
Cartography – map creation	Draw a sketch map using standard symbols/colours, determining a linear scale for the map	•	•	•	
	Sketch a representation of what can be observed from a vantage point (in the field or from an image), taking into account foreground, middle ground and background (proportions and features), adding relevant annotations, orientation, scale, time and location	•	•	•	
	Use border, orientation, legend, title, scale, source (BOLTSS) conventions when creating or completing a map	•	•	•	•
	Create and/or annotate maps at an appropriate scale for a specific purpose using area colouring/shading and symbols specific to an intended purpose	•	•	•	•
Co-ordinate systems	Recognise and use latitude and longitude to locate places in an atlas or on other maps with degree and minute precision	•	•	•	•
	Recognise and use four-figure area referencing on a topographic map (Eastings and Northings)	•	•	•	•
	Recognise and use six-figure grid references on topographic maps to locate/identify/interpret features (Eastings and Northings)	•	•	•	•
Cross-sections	Use contour data to create a cross-section on a provided set of axes	•		•	
	Analyse and annotate cross-sections with natural features and human activities as appropriate	•	•	•	
Direction	Understand and use the intermediate sixteen compass points	•	•	•	•
Geographic Information Systems (GIS) and Overlays	Create simple layers/overlays of data on a map or diagram	•	•	•	•
	Use layers/overlays to illustrate and assist with the analysis of spatial relationships	•	•	•	•
	Manipulate the interface of the GIS platform in use (e.g. viewing at different scales, adding and removing, viewing and hiding data layers)	•	•	•	•
Global Navigation Satellite System (GNSS)	Recognise, interpret and use co-ordinate and other data output on a GNSS receiver or mobile phone, including in fieldwork	•		•	
	Use location data in fieldwork (via dedicated GNSS receiver or mobile phone) to associate data and characteristics for digital mapping and analysis	•	•	•	
Images	Use satellite images and oblique and vertical aerial photographs to interpret and draw conclusions from observed features and to describe relative locations of features and general spatial patterns	•	•	•	•
	Use a provided or an estimated scale on a vertical aerial photograph and on a satellite image to establish distances and areas	•	•	•	•
	Create generalised maps using satellite images as a source	•	•	•	•

Skill	Description	Unit application				
		1	2	3	4	
Map use, interpretation and analysis	Compare and interpret different map types (including more specialised complex maps), scales and maps from different time periods for the same area to draw accurate conclusions	•	•	•	•	
	Use parallels of latitude and meridians of longitude and name major parallels/meridians (e.g. Equator, Prime Meridian, Tropics, polar Circles, International Date Line) to describe location	•	•	•	•	
	Use representative fraction/ratio scales to measure distances on maps and estimate areas on a topographic map using grid square	•	•	•	•	
	Use topographic maps in the field to identify locations, routes, features	•	•	•		
	Compare maps with three-dimensional landscape visualisations to assist with analysis	•		•		
	Interpret isopleth maps of continuous distribution (e.g. topographic/ contour maps or precipitation maps), noting the interval used	•	•	•	•	
	Interpret choropleth and thematic maps to determine patterns, or multiple choropleth/thematic maps to ascertain, for example, change or spatial association	•	•	•	•	
Mathematics	Skill	Description				
	Number operations	Calculate and interpret percentages, ratios, mean and median	•	•	•	•
	Graphs	Select, construct and interpret line graphs, bar graphs (simple, comparative, compound and divergent) and pie charts	•	•	•	•
		Interpret scatter graphs (and best fit line), proportional divided circles, logarithmic scales and flow diagrams	•	•	•	•
		Interpret specialised graph types (e.g. climate graph, population pyramid) Observe and describe trends in graphed time series data in accurate language	•	•	•	•
	Ranking	Determine a ranking based on relevant criteria that may involve relative weighting	•	•	•	•
	Tables of data	Assess available data to construct a suitable table that facilitates clarity and ease of interpretation	•	•	•	•
Interpret tables of data to determine trends and to identify significant data		•	•	•	•	
Skill	Description					
Source and data assessment	Reflect on the validity and reliability of data and information and their sources	•	•	•	•	
Social surveys and interviews	Consider sample size, location/s of surveying and times and durations of surveying in design of survey and analysis of results	•	•	•		
	Design and construct survey questionnaires or interview questions for a given purpose	•	•	•		
	Undertake surveys and/or interviews with potential for open responses and qualitative recording	•	•	•		
Transects	Observe, measure and construct an annotated transect over a small distance (e.g. coastal vegetation transition or land uses across an urban area)	•		•		
	Analyse transects to identify significant features, patterns or change	•		•		

3. Fieldwork report

Students undertake fieldwork in Units 1, 2 and 3. Students produce a fieldwork report of approximately 1500–2000 words for assessment in Units 1, 2 and 3. Students will use the following structure in their fieldwork reports.

Report Section	Guidelines
Definition of topic	<p>A definition of topic contains:</p> <ul style="list-style-type: none"> • A clear statement of the research question • An outline of the geographic context of the question • A brief hypothesis (expected answer to the research question) and justification of hypothesis
Primary sources and techniques used to collect data	<p>An outline of Primary sources used and techniques used to collect data indicates:</p> <ul style="list-style-type: none"> • A brief description of the sources and techniques used • A justification of their appropriateness to the research question
Secondary sources	<p>An outline of the Secondary sources used indicates:</p> <ul style="list-style-type: none"> • A brief description of the sources used • A justification of their appropriateness to the research question
Presentation of processed data and information	<p>The Presentation of processed data and information uses:</p> <ul style="list-style-type: none"> • Appropriate conventions • Techniques most appropriate to the meaning conveyed by the data and information • Correct sourcing of the data and information
Analysis of processed data and information	<p>An Analysis of processed data and information should:</p> <ul style="list-style-type: none"> • Identify key features • Describe patterns identified in the processed data and information • Draw relationships between key features and patterns in the processed data and information • Relate back to the research question and discuss whether or not the data and information has supported the hypothesis
Conclusion	<p>A Conclusion should:</p> <ul style="list-style-type: none"> • Identify the extent to which the analysis has answered the research question • Note any specific points to be learnt from the investigation
Evaluation	<p>An Evaluation considers:</p> <ul style="list-style-type: none"> • The relative effectiveness (limitations and weaknesses) of the techniques implemented and sources used • Future possibilities for any subsequent investigation
Referencing	<p>Referencing includes:</p> <ul style="list-style-type: none"> • Bibliography with correct and consistent referencing • Acknowledgment of sources of information and people

Unit 1: Hazards and disasters

In this unit students undertake an overview of hazards before investigating two contrasting types of hazards and the responses to them by people.

Hazards represent the potential to cause harm to people and or the environment whereas disasters are judgments about the impacts of hazard events. Hazards include a wide range of situations including those within local areas, such as fast moving traffic or the likelihood of coastal erosion, to regional and global hazards such as drought and infectious disease. Students examine the processes involved with hazards and hazard events, including their causes and impacts, human responses to hazard events and interconnections between human activities and natural phenomena. This unit investigates how people have responded to specific types of hazards, including attempts to reduce vulnerability to, and the impact of, hazard events.

Types of hazards are commonly classified by their causes:

- geological (or geophysical) hazards include volcanic activity, erosion, earthquakes, tsunamis, landslides and avalanches
- hydro-meteorological (weather, climate, water) hazards include droughts, floods, storms, storm surges and bushfires
- biological hazards include infectious diseases such as HIV/AIDS and malaria, animal transmitted diseases, water borne diseases, and plant and animal invasion such as blackberries and cane toads in Australia
- technological hazards are human induced and exacerbated hazards including oil spills, air pollution, radiation leaks, flooding primarily caused by land clearances, epidemics caused by poor living conditions and hazards caused by current climate change such as rising sea levels or increased intensification of weather events.

There may be considerable interconnection between the causes and types of hazards. For example, a region may be at risk from a number of hazards: high seasonal rainfall may result in a primary flood hazard which may in turn generate a secondary hazard of landslides.

Students undertake fieldwork in this unit and report on fieldwork using the structure provided ([see page 13](#)).

Area of Study 1

Characteristics of hazards

In this area of study students examine hazards and hazard events before engaging in a study of at least two specific hazards at a range of scales. They study one from at least two different types of hazards from the list provided, for example, coastal hazards and an alien animal invasion, or floods and oil spills. The selection of hazards should allow students to use visual representations and topographical maps at various scales and undertake fieldwork.

Outcome 1

On completion of this unit the student should be able to analyse, describe and explain the nature of hazards and impacts of hazard events at a range of scales.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 1 and the relevant cross-study specifications detailed on [pages 9–13](#).

Key knowledge

- the classification of types of hazards by their causes and the interconnections between causes
- an overview of hazards including their global distribution, location, scale, frequency, sequence and magnitude and their role in natural systems
- the nature of at least two selected hazards, including:
 - physical causes
 - location, scale, frequency, magnitude, sequence
 - the role of human activity in initiating and/or compounding the selected hazards and how this has changed over time
 - factors affecting the risk level for people, places and environments and impacts of the selected hazards and hazard events on people and environments and how these factors are interconnected
 - the potential and realised positive and negative impacts on people and environments in the short and long term
 - comparison with similar hazards in other parts of the world
- applications of spatial technologies by agencies in identification and assessment of impacts, and management of hazards and hazard events.

Key skills

- analyse maps, data and other geographic information to develop descriptions and explanations
- collect, sort, process and represent data and other information
- interpret and analyse maps and other geographical data and information
- identify contrasting hazards and hazard types
- describe the characteristics of selected hazards
- describe and explain the causes, sequence and impacts of hazards and hazard events
- explain the role of spatial technologies in identification and assessment of the impacts, and management of hazards and hazard events.

Area of Study 2

Response to hazards and disasters

In this area of study students explore the nature and effectiveness of specific measures such as prediction and warning programs, community preparedness and land use planning, as well as actions taken after hazards become harmful and destructive disasters. They study natural and human factors influencing the nature of human responses, considering the scale of the hazard, levels of risk due to hazards, past experiences and perceptions of similar hazards and hazard events, the economic choices available to government organisations and communities to take action, available technological resources and the ability to plan and develop effective prevention and mitigation measures. Students investigate the human responses to the hazards selected in Area of Study 1, with reference to a variety of locations.

Outcome 2

On completion of this unit the student should be able to analyse and explain the nature, purpose and effectiveness of a range of responses to selected hazards and disasters.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2 and the relevant cross-study specifications detailed on [pages 9–13](#).

Key knowledge

- natural and human factors influencing responses to selected hazards and disasters
- the nature and importance of interactions between natural processes and human activity in developing responses to selected hazards and disasters
- the types of responses to selected hazards and disasters, including prediction of risk and vulnerability, planning protection and mitigation, recovery and reconstruction
- specific responses by national and global organisations regarding prediction, planning, recovery and reconstruction to similar hazards and disasters in other parts of the world
- human responses to selected hazards and disasters and how their effectiveness can be measured
- the role of spatial technologies in management of responses to selected hazards and disasters.

Key skills

- analyse maps, data and other geographic information to develop descriptions and explanations
- collect, sort, process and represent data and other information
- interpret and analyse maps and other geographical data and information
- describe and explain the nature and purpose of responses to hazards and disasters
- explain the effectiveness of responses to specific hazards and disasters in a variety of locations
- explain the usefulness of spatial technologies in developing effective prevention and mitigation measures with selected hazards and disasters.

Assessment

The award of satisfactory completion for a unit is based on whether the student has demonstrated the set of outcomes specified for the unit. Teachers should use a variety of learning activities and assessment tasks that provide a range of opportunities for students to demonstrate the key knowledge and key skills in the outcomes.

The areas of study, including the key knowledge and key skills listed for the outcomes, should be used for course design and the development of learning activities and assessment tasks. Assessment must be a part of the regular teaching and learning program and should be completed mainly in class and within a limited timeframe.

All assessments at Units 1 and 2 are school-based. Procedures for assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

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

Suitable tasks for assessment in this unit are:

- a fieldwork report of approximately 1500–2000 words (for further information see [page 13](#))
and at least one of:
- structured questions
- a case study
- a report
- a folio of exercises.

Where teachers allow students to choose between tasks they must ensure that the tasks they set are of comparable scope and demand.

Unit 2: Tourism

In this unit students investigate the characteristics of tourism, with particular emphasis on where it has developed, its various forms, how it has changed and continues to change and its impacts on people, places and environments. They select contrasting examples of tourism from within Australia and elsewhere in the world to support their investigations. Tourism involves the movement of people travelling away from and staying outside of their usual environment for more than 24 hours but not more than one consecutive year (United Nations World Tourism Organization definition). Over one billion tourists a year cross international boundaries with greater numbers involved as domestic tourists within their own countries. The Asia and the Pacific hosts 23 per cent of international arrivals. The scale of tourist movements since the 1950s and its predicted growth has had and continues to have a significant impact on local, regional and national environments, economies and cultures. The travel and tourism industry is directly responsible for one in every twelve jobs globally and generates around 5 per cent of its GDP. (UNTWO Annual Reports 2011–2013).

The study of tourism at local, regional and global scales emphasises the interconnection within and between places. For example, the interconnections of climate, landforms and culture help determine the characteristics of a place that can prove attractive to tourists. There is an interconnection between places tourists originate from and their destinations through the development of communication and transport infrastructure, employment, together with cultural preservation and acculturation. The growth of tourism at all scales requires careful management to ensure environmentally sustainable and economically viable tourism.

Students undertake fieldwork in this unit and report on fieldwork using the structure provided ([see page 13](#)).

Area of Study 1

Characteristics of tourism

In this area of study students examine the characteristics of tourism, the location and distribution of different types of tourism and tourist destinations and the factors affecting different types of tourism. Students support this investigation with contrasting examples from within Australia and elsewhere in the world. They investigate in detail at least one tourism location using appropriate fieldwork techniques, and one other location elsewhere in the world. The selection of examples should allow students to work with a range of information sources, for example statistical data, digital images, streamed video and a variety of maps at various scales, as well as undertake fieldwork.

Outcome 1

On completion of this unit the student should be able to analyse, describe and explain the nature of tourism at a range of scales.

To achieve this outcome the student will draw on the key knowledge and key skills outlined in Area of Study 1 and the relevant cross-study specifications detailed on [pages 9–13](#).

Key knowledge

- the characteristics of domestic and international tourism
- the changing characteristics of tourism over time
- the location and distribution of different types of tourism and tourist destinations
- factors affecting the different types of tourism at selected locations from two different parts of the world, including:
 - natural and human characteristics of host destinations
 - development of transport and communication technology

- international agreements and national policies
- changing income and lifestyles
- investment and marketing
- regional occurrences, for example major events, disasters, diseases, and economic and political situations
- the use of spatial technologies by the tourism industry for the identification of different types of tourism and tourist destinations and the factors affecting domestic and international tourism.

Key skills

- analyse maps, data and other geographic information to develop descriptions and explanations
- collect, sort, process and represent data and other information
- interpret and analyse maps and other geographical data and information
- identify the characteristics of tourism
- describe the changing sources and destinations of different types of tourism
- describe and explain the different types of tourism and tourist locations and destinations
- describe and explain the factors affecting different types of tourism
- explain the usefulness of spatial technologies for the tourism industry.

Area of Study 2

Impact of tourism

In this area of study students explore the environmental, economic and socio-cultural impacts of different types of tourism. They investigate at least one tourism location, using appropriate fieldwork techniques, and another elsewhere in the world. Students evaluate the effectiveness of measures taken to enhance the positive impacts and/or to minimise the negative impacts at these locations. This fieldwork site could be the same location used for Area of Study 1. They investigate the interconnection of the two selected locations with their surrounding region and national context.

Outcome 2

On completion of this unit the student should be able to analyse and explain the impacts of tourism on people, places and environments and evaluate the effectiveness of strategies for managing tourism.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2 and the relevant cross-study specifications detailed on [pages 9–13](#).

Key knowledge

- the environmental and economic impacts of tourism at a range of locations and spatial and temporal scales
- socio-cultural impacts of tourism at origin and destination
- the range of management strategies responding to environmental, economic and socio-cultural impacts, and the consequences of these responses
- the effectiveness of management strategies in response to the impacts of tourism
- the environmental sustainability, economic viability and socio-cultural value of tourism at a range of scales
- the role of planning for sustainable outcomes in tourism.

Key skills

- analyse maps, data and other geographic information to develop descriptions and explanations
- collect, sort, process and represent data and other information
- interpret and analyse maps and other geographical data and information
- identify the types of tourism impacts at a range of locations and scales
- describe the range of management strategies linked to tourism
- evaluate the effectiveness of management strategies, in relation to environmental sustainability, economic viability and socio-cultural value of tourism, as appropriate.

Assessment

The award of satisfactory completion for a unit is based on whether the student has demonstrated the set of outcomes specified for the unit. Teachers should use a variety of learning activities and assessment tasks that provide a range of opportunities for students to demonstrate the key knowledge and key skills in the outcomes.

The areas of study, including the key knowledge and key skills listed for the outcomes, should be used for course design and the development of learning activities and assessment tasks. Assessment must be a part of the regular teaching and learning program and should be completed mainly in class and within a limited timeframe.

All assessments at Units 1 and 2 are school-based. Procedures for assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

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

Suitable tasks for assessment in this unit are:

- a fieldwork report of approximately 1500–2000 words (for further information see [page 13](#))

and at least one of:

- structured questions
- a case study
- a report
- a folio of exercises.

Where teachers allow students to choose between tasks they must ensure that the tasks they set are of comparable scope and demand.

Unit 3: Changing the land

This unit focuses on two investigations of geographical change: change to land cover and change to land use. Land cover includes biomes such as forest, grassland, tundra and wetlands, as well as land covered by ice and water. Land cover is the natural state of the biophysical environment developed over time as a result of the interconnection between climate, soils, landforms and flora and fauna and, increasingly, interconnections with human activity. Natural land cover has been altered by many processes such as geomorphological events, plant succession and climate change. People have modified land cover to produce a range of land uses to satisfy needs such as housing, resource provision, communication, recreation and so on.

Students investigate three major processes that are changing land cover in many regions of the world:

- deforestation
- desertification, and
- melting glaciers and ice sheets.

Students investigate the distribution and causes of these three processes. They select one location for each of the three processes to develop a greater understanding of the changes to land cover produced by these processes, the impacts of these changes and responses to these changes at different scales.

At a local scale students investigate land use change using appropriate fieldwork techniques and secondary sources. They investigate the scale of change, the reasons for change and the impacts of change.

Students undertake fieldwork and produce a fieldwork report using the structure provided ([see page 13](#)).

Area of Study 1

Land use change

In this area of study students select a local area and use appropriate fieldwork techniques and secondary sources to investigate the processes and impacts of land use change. This change may have recently occurred, is underway or is planned for the near future.

Outcome 1

On completion of this unit the student should be able to analyse, describe and explain land use change and assess its impacts.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 1 and the relevant cross-study specifications detailed on [pages 9–13](#).

Key knowledge

- the location of the selected area, current land use and other natural and human geographic characteristics
- the interconnection of the selected area with its surrounding region
- for the selected land use, the:
 - processes of change, including the nature, scale and time sequence of change
 - reason/s for change considering the influence of geographical characteristics of the selected area and surrounding region and the influence of individuals, organisations and planning strategies
 - positive and negative impacts of the change on the environment, and economic and social conditions in the selected area and surrounding region.
- the use of spatial technologies to assess and manage changes in land use

Key skills

- analyse maps, data and other geographic information to develop descriptions and explanations
- collect, sort, process and represent data and other information
- interpret and analyse maps and other geographical data and information
- identify and describe the geographic characteristics of the selected area
- identify and describe the change in land use in the selected area at spatial and temporal scales
- explain the processes of change, the reasons for change and the resulting land use change in the selected area
- explain and assess positive and negative impacts on the selected area and the surrounding region resulting from land use changes.

Area of Study 2

Land cover change

In this area of study students undertake an overview of global land cover and changes that have occurred over time. They investigate three major processes that are changing land cover: deforestation, desertification and melting glaciers and ice sheets. They analyse these processes, explain their impacts on land cover and discuss responses to these land cover changes at three different locations in the world – one location for each process. They also evaluate three different global responses to the impacts of land cover change, one global response for each process.

Outcome 2

On completion of this unit the student should be able to analyse, describe and explain processes that result in changes to land cover and discuss the impacts and responses resulting from these changes.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2 and the relevant cross-study specifications detailed on [pages 9–13](#).

Key knowledge

- the spatial distribution of global land cover
- the spatial distribution of land cover on a global scale that was evident during the last Glacial Maximum around 20,000 years ago and the Holocene Climatic Optimum around 8000 years ago
- the distribution of each of the three processes on a global scale
- the nature of deforestation, desertification and melting glaciers and ice sheets as processes
- the role and interconnection of natural processes and human activity in causing deforestation, desertification and melting glaciers and ice sheets
- for each of the selected three locations:
 - its location within the global distribution of the relevant process
 - reasons for current land cover changes
 - impacts of these changes on the environment, economic activity and social conditions
 - the use of spatial technologies to assess and manage land cover change
 - a response to the impacts of these changes at each of local and national scales
- a global response to the impacts of land cover change resulting from each of the processes of deforestation, desertification and melting glaciers and ice sheets.

Key skills

- analyse maps, data and other geographic information to develop descriptions and explanations
- collect, sort, process and represent data and other information
- interpret and analyse maps and other geographical data and information
- identify and describe the spatial distribution of the world's land cover
- compare the spatial distributions of the world's land cover over time
- describe and explain the processes and causes of deforestation, desertification and melting glaciers and ice sheets
- describe and explain the changes to land cover that have occurred as a result of deforestation, desertification and melting glaciers and ice sheets, and the impacts of the changes to land cover
- explain the significance of the changes to land cover
- apply appropriate criteria to evaluate the effectiveness or likely effectiveness of responses to the impacts of these changes.

School-based assessment**Satisfactory completion**

The award of satisfactory completion for a unit is based on whether the student has demonstrated the set of outcomes specified for the unit. Teachers should use a variety of learning activities and assessment tasks to provide a range of opportunities for students to demonstrate the key knowledge and key skills in the outcomes.

The areas of study and key knowledge and key skills listed for the outcomes should be used for course design and the development of learning activities and assessment tasks.

Assessment of levels of achievement

The student's level of achievement in Unit 3 will be determined by School-assessed Coursework. School-assessed Coursework 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 School-assessed Coursework task, they should ensure that the options are of comparable scope and demand.

The types and range of forms of School-assessed Coursework for the outcomes are prescribed within the study design. The VCAA publishes *Advice for teachers* for this study, which includes advice on the design of assessment tasks and the assessment of student work for a level of achievement.

Teachers will provide to the VCAA a numerical score representing an assessment of the student's level of achievement. The score must be based on the teacher's assessment of the performance of each student on the tasks set out in the following table.

Contribution to final assessment

School-assessed Coursework for Unit 3 will contribute 25 per cent to the study score.

Outcomes	Marks allocated*	Assessment tasks
Outcome 1 Analyse, describe and explain land use change and assess its impacts.	50	Structured questions (approximately 50–60 minutes) and Fieldwork report (approximately 1500–2000 words).
Outcome 2 Analyse, describe and explain processes that result in changes to land cover and discuss the impacts and responses resulting from these changes.	50	Analysis of geographic data (approximately 50–60 minutes).
Total marks	100	

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

External assessment

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

Unit 4: Human population – trends and issues

In this unit students investigate the geography of human populations. They explore the patterns of population change, movement and distribution, and how governments, organisations and individuals have responded to those changes in different parts of the world.

In this unit, students study population dynamics before undertaking an investigation into two significant population trends arising in different parts of the world. They examine the dynamics of populations and their economic, social, political and environmental impacts on people and places.

The growth of the world's population from 2.5 billion in 1950 to over 7 billion since 2010 has been on a scale without parallel in human history. Much of the current growth is occurring within developing countries while the populations in many developed countries are either growing slowly or are declining.

Populations change by growth and decline in fertility and mortality, and by people moving to different places. The Demographic Transition Model and population structure diagrams provide frameworks for investigating the key dynamics of population.

Population movements such as voluntary and forced movements over long or short terms add further complexity to population structures and to economic, social, political and environmental conditions. Many factors influence population change, including the impact of government policies, economic conditions, wars and revolution, political boundary changes and hazard events.

Area of Study 1

Population dynamics

In this area of study students undertake an overview of world population distribution and growth before investigating the dynamics of population change over time and space. Through the study of population dynamics students investigate growth and decline in fertility and mortality, together with population movements. Students study forced and voluntary, and internal and external, population movements and how they can be long term or short term. The study is supported with examples from within and between countries with different economic and political conditions and social structures that illustrate the dynamics of population. Students develop understanding of the Demographic Transition Model and its applications, and the Malthusian theory of population.

Outcome 1

On completion of this unit the student should be able to analyse, describe and explain population dynamics on a global scale.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 1 and the relevant cross-study specifications detailed on [pages 9–13](#).

Key knowledge

- present-day world population distribution
- the distribution of world population characteristics including birth rate, death rate, infant mortality rate, fertility rate and life expectancy
- the overview of world population growth since the 1700s and projected changes in the 21st century
- the nature of population structures as a measure of population characteristics at a point in time and over time

- the five stage Demographic Transition Model and its use in interpreting population structures and other population characteristics
- Malthusian theory and its explanation of population growth and sustainability
- the main causes of population change since the 1950s
- the types and causes of population movements and their contribution to population change
- the similarities and differences in population dynamics and population structures within and between countries with different economic and political conditions and social structures.

Key skills

- analyse maps, data and other geographic information to develop descriptions and explanations
- collect, sort, process and represent data and other information
- interpret and analyse maps and other geographical data and information
- identify and describe patterns in world population distribution and characteristics, and trends in world population growth
- assess the relevance of Malthusian theory
- identify and describe the types and causes of population change
- explain the causes of population change and sustainability
- explain similarities and differences in population dynamics and population structures within and between locations.

Area of Study 2

Population issues and challenges

In this area of study students undertake investigations into two significant population trends that have developed in different parts of the world: a growing population of one country and an ageing population of another country.

Students place these trends and resulting issues and challenges in their world regional context. Issues resulting from these population trends include, among others, meeting healthcare and social service needs. Students investigate issues arising from each population trend, the challenges that arise in coping with the issues, and their interconnection with population dynamics. They evaluate the effectiveness of strategies in response to these issues and challenges. Strategies can be selected from government and/or non-government organisations. Comparison of strategies is undertaken within each selected country.

Outcome 2

On completion of this unit the student should be able to analyse, describe and explain the nature of significant population issues and challenges in selected locations and evaluate responses.

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2 and the relevant cross-study specifications detailed on [pages 9–13](#).

Key knowledge

- for each selected country:
 - the nature of population trends and resulting issues and challenges
 - the location and distribution of issues and challenges
 - the nature of population issues and challenges in their world regional context
 - population movement as a contributing factor to structural change in population

- the interconnections between population dynamics and resulting issues and challenges
- other causes of specific issues and challenges
- the economic, social, political and environmental factors contributing to the issues' impact on people and places
- strategies developed in response to issues and the economic, social, political and environmental impacts of these strategies on people and places
- the effectiveness of strategies developed in response to these issues
- the role and effectiveness of spatial technologies for the development and implementation of strategies in response to population issues.

Key skills

- analyse maps, data and other geographic information to develop descriptions and explanations
- collect, sort, process and represent data and other information
- interpret and analyse maps and other geographical data and information
- describe and explain the nature and significance of population issues and challenges
- describe and explain the causes and impacts of issues and challenges
- describe and explain the responses to population issues and challenges
- use appropriate criteria to evaluate the effectiveness of strategies developed in response to specific issues
- explain the role and effectiveness of spatial technologies for the development and implementation of strategies developed in response to population issues
- compare the effectiveness of strategies.

School-based assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on whether the student has demonstrated the set of outcomes specified for the unit. Teachers should use a variety of learning activities and assessment tasks to provide a range of opportunities for students to demonstrate the key knowledge and key skills in the outcomes.

The areas of study and key knowledge and key skills listed for the outcomes should be used for course design and the development of learning activities and assessment tasks.

Assessment of levels of achievement

The student's level of achievement in Unit 4 will be determined by School-assessed Coursework. School-assessed Coursework 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 School-assessed Coursework task, they should ensure that the options are of comparable scope and demand.

The types and range of forms of School-assessed Coursework for the outcomes are prescribed within the study design. The VCAA publishes *Advice for teachers* for this study, which includes advice on the design of assessment tasks and the assessment of student work for a level of achievement.

Teachers will provide to the VCAA a numerical score representing an assessment of the student's level of achievement. The score must be based on the teacher's assessment of the performance of each student on the tasks set out in the following table.

Contribution to final assessment

School-assessed Coursework for Unit 4 will contribute 25 per cent to the study score.

Outcomes	Marks allocated*	Assessment tasks
Outcome 1 Analyse, describe and explain population dynamics on a global scale.	40	Analysis of geographic data (approximately 50–60 minutes).
Outcome 2 Analyse, describe and explain the nature of significant population issues and challenges in selected locations and evaluate responses.	60	Structured questions (approximately 100 minutes).
Total marks	100	

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

External assessment

The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination.

Contribution to final assessment

The examination will contribute 50 per cent.

End-of-year examination

Description

The examination will be set by a panel appointed by the VCAA. 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 VCAA.
- VCAA 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 VCAA.

Further advice

The VCAA publishes specifications for all VCE examinations on the VCAA 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.