



Term	Week	Topic and key teaching points	Syllabus content	WALT / WILF	Assessment
1	Semester 1 Unit 1 Term 1 Weeks 1-2	Mapping & Data Interpretation Topographic Mapping Week 1 Lesson 1- Go through unit outline, assessment outline, flag readers and hand out mapping booklet and explain Connect page Lesson 2- Site and situation, natural and cultural features, BOLTSS and spatial distribution land use Lesson 3- Scale, ratio, linear, write into words, spot height, contour intervals. Recap site and situation and natural and cultural features bearing and photographs	The development of Geographical skills is intrinsic to the teaching of this unit. This content follows this table.	End of Week 1 WALT – Examine various mapping skills WILF- Practice mapping skills in preparation for a test	Task 1 - Mapping & Data Interpretation - Topographic Mapping (10%) due Week 2 Term 1
		Lesson 4 – revision with map Week 2 Lesson 5 – Revision with map Lesson 6 – Task 1 - Mapping &		End of Week 2 WALT – Examine various mapping skills WILF – Practice mapping skills in preparation for a test	
		Data Interpretation - Topographic Mapping Test		F. 5 F. 3. 3. 10 1 2 1001	





		Lesson 7- Go through mapping test and annotated cross sections			
		Lesson 8- Revision with map			
1	Term 1 Weeks 3-5	Overview of Geography of environments at risks What is geography? Week 3 Lesson 9- Revision with map Lesson 10- Task 2 - Mapping & Data Interpretation - Topographic Mapping Test Lesson 11- Go through mapping test, What is geography, environment, biome and ecosystems Colour and label biomes and describe them computers Lesson 12 - Define natural and cultural features, biotic and abiotic – label and describe	the concepts of environment, biome and ecosystem biotic and abiotic elements of environments, biomes and ecosystems the following ecosystem concepts: biodiversity food chains and webs biomass trophic levels pyramid of numbers pyramid of energy flows of matter and energy the differences between natural and cultural features of environments the concept of sustainability	End of Week 3 WALT – Examine various mapping skills Identify biomes, define a variety of terms WILF – Practice mapping skills in preparation for a test Describe and explain biomes in relation to location, climate and flora and fauna	Task 2 - Mapping & Data Interpretation - Topographic Mapping (10%) due Week 4 Term 1





Week 4		End of Week 4	
Lesson 13- – Define biodiversity, food chains, food webs, trophic levels and biomass Lesson 14- label interaction between the spheres, food chains, food webs, create and explain		 WALT – Define a variety of geographical terms WILF – Describe and explain the following terms with examples eg biodiversity, food chains, food webs, 	
Lesson 15- Define ecological pyramid and create, biomass, endemic, biodiversity and threats and protecting Lesson 16 – Define sustainability – brainstorm and explain, Ecosystem	Overview of environments at risk • the concepts of environment, biome and		
Week 5 Lesson 17- Labour Day Public Holiday (Monday) start revision for End of unit test.	 ecosystem biotic and abiotic elements of environments, biomes and ecosystems the following ecosystem concepts: biodiversity food chains and webs biomass 	End of Week 5 WALT – Complete revision sheet locating notes from the information cover in the course	Task 3 - Short Answer response test questions based on the key concepts from Unit 1 Overview Week 6 (20%)
Lesson 18- Revision for mid unit test Lesson 19- Revision for mid unit test	 trophic levels pyramid of numbers pyramid of energy flows of matter and energy 	WILF – Complete mid unit test by applying information and notes from revision sheet	
Lesson 20 – Task 3 - Short Answer response test questions based on the key concepts from Unit 1 Overview	 the differences between natural and cultural features of environments the concept of sustainability 		





Jarrah Forest Investigation Task
Depth Study 1 - Students plan
and conduct investigations,
process and translate
information, and communicate
findings following ethical
protocols and procedures. Both
primary and secondary
information sources are used.
Formats can include:
investigation, assignment,
report and/or an oral or
multimedia presentation

Week 6

Term 1 Week 6 Lesson 21- Explain Task 4 – Geographical Inquiry: The Sclerophyllous forest (an environment at risk)

Lesson 22- Students work on their research for their Geographical Inquiry – Computers

Lesson 23- Students work on their research for their Geographical Inquiry.

Lesson 24 – Students work on their research for their Geographical Inquiry.

Students explore the following aspects of the sclerophyllous forest

- biotic and abiotic elements of the sclerophyllous forest location and
- distribution of sclerophyllous forest
- characteristics of the following elements of the environment, biome or ecosystem:
 - climate, including temperature and rainfall
 - soils and landforms, including soil structure and topography
 - flora and fauna, including dominant species and community structures
- the interactions between the flora and fauna of the sclerophyllous forest, including the following ecosystem concepts:
 - biodiversity
 - food chains and webs
 - biomass
 - trophic levels
 - pyramid of numbers
 - pyramid of energy
 - flows of matter and energy
- interrelationships between biotic elements and abiotic elements of the sclerophyllous forest, such as xerophytic adaptations of plants to drought conditions

End of Week 6

WALT – Participate and attend the fieldwork excursion

WILF – Complete and submit fieldwork booklet

Task 4 – Geographical Inquiry: The Sclerophyllous forest (an environment at risk) due Week 2 Term 2 (30%)





 human activity and land use impacts upon patterns and processes within the sclerophyllous forest cultural landscapes associated with the sclerophyllous forest economic, political and social factors that impact upon decisions about sustainability of the sclerophyllous forest
the different values and viewpoints (environmental, economic and social) that shape the human use of the sclerophyllous forest
benefits of implementing sustainable practices within the sclerophyllous forest
the extent to which current land use practices are sustainable within the sclerophyllous forest
measures by which humans are caring for the sclerophyllous forest; and the extent to which these measures have been successful.





		Week 7 Fieldwork (10%) – Perth Hills Jarrah Forest – Complete booklet by collecting (5%) and interpreting primary information and/or data and using Geographical inquiry skills (5 % total)	Fieldwork skills (use of field observations and measurements) Collect primary data using field techniques, including: surveys and interviews, observing and recording, listening, questioning, sketching and annotating, measuring and counting, photographing and note-taking	End of Week 7 WALT – Students research their elements of their geographical inquiry WILF –Students complete notes of their sections of their geographical report	Task 5 Part A Perth Hills Discovery Centre - (5%) Practical skills collecting and interpreting primary information and/ or data and using Geographical inquiry skills. Part B Students complete a fieldwork booklet. (5%) total (10%) Week 7 Term 1 – submit booklet Week 8
		Lesson 25- PTO Tuesday - Students work on their research for their Geographical Inquiry – Computers	collate field data using techniques, including: listing, tabulating, report writing, graphing, constructing diagrams and mapping		
1	Term 1 Weeks 7-10	Lesson 26- Students work on their research for their Geographical Inquiry – Computers	analyse and interpret primary data		
		Lesson 27- Students work on their research for their Geographical Inquiry – explain excursion Lesson 28 – Task 5 - Fieldwork	Students explore the following aspects of the sclerophyllous forest		
		excursion Perth Hills (Friday)	biotic and abiotic elements of the sclerophyllous forest location and	End of Week 8	
		Week 8	distribution of sclerophyllous forest	WALT – Students research their elements of their geographical	
		Lesson 29- Students complete fieldwork booklet	 characteristics of the following elements of the environment, biome or ecosystem: climate, including temperature 	inquiry WILF - Students complete notes	
		Lesson 30 Students complete fieldwork booklet	and rainfall	of their sections of their geographical report	





Lesson 31- Students submit Task 5# Fieldwork booklet

Students continue work on their research for their Geographical Inquiry – Computers

Lesson 32 – Students work on their research for their Geographical Inquiry – Computers

Week 9

Lesson 33- - Students work on their research for their Geographical Inquiry – Computers

Lesson 34- Students work on their research for their Geographical Inquiry – Computers

Lesson 35- PTO (Wednesday)Students work on their research for their Geographical Inquiry.

Lesson 36- Students work on their research for their Geographical Inquiry.

Week 10

Lesson 37-- Students work on their research for their Geographical Inquiry – Computers

- soils and landforms, including soil structure and topography
- flora and fauna, including dominant species and community structures
- the interactions between the flora and fauna of the sclerophyllous forest, including the following ecosystem concepts:
 - biodiversity
 - food chains and webs
 - biomass
 - trophic levels
 - pyramid of numbers
 - pyramid of energy
 - flows of matter and energy
- interrelationships between biotic elements and abiotic elements of the sclerophyllous forest, such as xerophytic adaptations of plants to drought conditions
- human activity and land use impacts upon patterns and processes within the sclerophyllous forest
- cultural landscapes associated with the sclerophyllous forest
- economic, political and social factors that impact upon decisions about sustainability of the sclerophyllous forest

End of Week 9

WALT – Students research their elements of their geographical inquiry

WILF - Students complete notes of their sections of their geographical report

End of Week 10

WALT – Students research their elements of their geographical inquiry

WILF - Students complete notes of their sections of their geographical report





	Lesson 38- Students work on their research for their Geographical Inquiry – Computers Lesson 39- Students work on their research for their Geographical Inquiry. Lesson 40- Students work on their research for their Geographical Inquiry.		 the different values and viewpoints (environmental, economic and social) that shape the human use of the sclerophyllous forest benefits of implementing sustainable practices within the sclerophyllous forest the extent to which current land use practices are sustainable within the sclerophyllous forest measures by which humans are caring for the sclerophyllous forest; and the extent to which these measures have been successful. 		
			School Holidays Fri 9 Apr	il - Sun 24 April	
2	Term 2 Weeks 1-3 Wk 11-	Week 11 (Wk 1) Lesson 41 - ANZAC Day (Monday) Lesson 42- Staff Development Day (Tuesday) Students work on their research for their Geographical Inquiry – Computers Lesson 43- Students work on their research for their Geographical Inquiry – Computers	Students explore the following aspects of the sclerophyllous forest • biotic and abiotic elements of the sclerophyllous forest location and • distribution of sclerophyllous forest • characteristics of the following elements of the environment, biome or ecosystem: • climate, including temperature and rainfall	WALT – Students research their elements of their geographical inquiry WILF – Students complete notes of their sections of their geographical report ready for submission at the end of the week	





Lesson 44 – Students work on their research for their Geographical Inquiry – Computers

Week 12 (Wk 2)

Lesson 45- - Students work on their research for their Geographical Inquiry – Computers

Lesson 46- Students work on their research for their Geographical Inquiry – Computers

Lesson 47- Students work on their research for their Geographical Inquiry – Computers

Lesson 48 – Task 4 – Geographical Inquiry: The Sclerophyllous forest (an environment at risk) due Week 2 Term 2 (30%)

Week 13 (Wk 3)

Lesson 49- Identify the economic, political and social factors that impact upon decisions about sustainability of the sclerophyllous forest

Lesson 50- Identify the different values and viewpoints

- soils and landforms, including soil structure and topography
- flora and fauna, including dominant species and community structures
- the interactions between the flora and fauna of the sclerophyllous forest, including the following ecosystem concepts:
 - biodiversity
 - food chains and webs
 - biomass
 - trophic levels
 - pyramid of numbers
 - pyramid of energy
 - flows of matter and energy
- interrelationships between biotic elements and abiotic elements of the sclerophyllous forest, such as xerophytic adaptations of plants to drought conditions
- human activity and land use impacts upon patterns and processes within the sclerophyllous forest
- cultural landscapes associated with the sclerophyllous forest
- economic, political and social factors that impact upon decisions about sustainability of the sclerophyllous forest
- the different values and viewpoints (environmental, economic and social) that

End of Week 12 (Wk 2)

WALT – Students research their elements of their geographical inquiry

WILF – Students complete notes of their sections of their geographical report

End of Week 13 (Wk 3)

WALT – Students examine the questions in lesson 45 – 48 with reference to their geographical inquiry

WILF – Students discuss as a group and make notes on the topics mentioned in lesson 45-48





		(environmental, economic and social) that shape the human use of the sclerophyllous forest Lesson 51- Benefits of implementing sustainable practices within the sclerophyllous forest The extent to which current land use practices are sustainable within a sclerophyllous forest Lesson 52 – Measures by which humans are caring for the sclerophyllous forest: and the extent to which these measures have been successful	 shape the human use of the sclerophyllous forest benefits of implementing sustainable practices within the sclerophyllous forest the extent to which current land use practices are sustainable within the sclerophyllous forest measures by which humans are caring for the sclerophyllous forest; and the extent to which these measures have been successful. 		
2	Term 2 Week 4 Wk 14	Revision Week 14 (Wk 4) Lesson 53- Revision sheet for Task 6 Lesson 46- Revision sheet for Task 6 Lesson 47- Revision sheet for Task 6 Lesson 48 – Revision sheet for Task 6		WALT – Students locate information from their reader to complete the revision sheet WILF –Students complete notes on their revision sheets which helps them prepare for their end on unit test	





2	Term 2 Week 5 Wk 15	Week 15(Wk 5) Lesson 49- Task 6 - A series of short response questions based on a sampling of the content from Unit 1 (20%) – Complete in class Lesson 50- View the click view clip living with fire and complete the during questions https://clickv.ie/w/clxm Lesson 51- Click view clip living with fire during questions https://clickv.ie/w/clxm Lesson 52 – Click view Australia's Diverse environments. https://clickv.ie/w/TNWo Complete the before questions	 biotic and abiotic elements of the selected environment, biome or ecosystem location and distribution of the environment, biome or ecosystem characteristics of the following elements of the environment, biome or ecosystem: climate, including temperature and rainfall soils and landforms, including soil structure and topography flora and fauna, including dominant species and community structures 	WALT – Students view the click view video on living with fire and Australia's diverse environments WILF – Students complete questions related to the videos above.	Task 6 - A series of short response questions based on a sampling of the content from Unit 1 (20%) Term 2 Week 5
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		Week 16 (Wk 6)	Overview of people and places	End of Week 16 (Wk 6)	
2	Week 6 Wk 16	Lesson 53- WA Day (Public holiday) (Monday) What is a region, Perth as a region. Page 2-3, How Perth has changed over time – computers page 4-6 Lesson 54- How Perth has changed over time – computers page 4-6, Describing Perth and Perth's Natural Environment. Page 7 and 8 Lesson 55- Perth's Climate and creating climate graphs – Page 9-10 Lesson 56 – Characteristics of the cultural environment Page 23, colour and label the different land uses Page 24	 the concept of a region the natural and cultural features of regions the four natural spheres of regions: lithosphere atmosphere hydrosphere biosphere the three types of cultural features of regions (land use, settlement, transport) how regions can change over time the concept of sustainability factors that impact upon the implementation of sustainable practices the location of, and spatial variation within, the region characteristics of the natural environment of the region, including: topography and variations in the topography weather and climatic characteristics and factors that characterise the regional weather and climate vegetation and factors affecting the vegetation patterns 	WALT –. View the Power point on Perth as a region and extract information WILF – Students complete pages 2-8, 9- 10 and 23-24 in their booklets using the Power point to locate information	





			 soil characteristics and patterns of soil distribution the associations between the natural attributes of the environment of the region, such as climate, soil type, vegetation, topography changing patterns of the natural environments of the region over time, such as changes in soil fertility, climatic variations, changes in topography as a result of fluvial action 		
2	Unit 2 Semester 2 Week 1 Wk 7 - 8	Week 1 - 2 (Wk 7- 8) Year 11 Exams	Year 11 Exams	Year 11 Exams	Year 11 Exams





Assessment type	Assessment type weighting	Assessment task weighting	When/due date/ start and submission date	Assessment task	Syllabus content
Geographical	I Inquiry (30%)	30% 61 marks	Term 1 Week 8- 9 Term 2 Week 2 – Due Semester 1	Task 4 Jarrah Forest Investigation Task Depth Study 1 - Students plan and conduct investigations, process and translate information, and communicate findings following ethical protocols and procedures. Both primary and secondary information sources are used. Formats can include: investigation, assignment, report and/or an oral or multimedia presentation	Depth study: The Sclerophyllous forest (an environment at risk) Students explore the following aspects of the sclerophyllous forest • biotic and abiotic elements of the sclerophyllous forest location and • distribution of sclerophyllous forest • characteristics of the following elements of the environment, biome or ecosystem: • climate, including temperature and rainfall • soils and landforms, including soil structure and topography • flora and fauna, including dominant species and community structures • the interactions between the flora and fauna of the sclerophyllous forest, including the following ecosystem concepts: • biodiversity • food chains and webs • biomass • trophic levels • pyramid of numbers • pyramid of energy • flows of matter and energy • interrelationships between biotic elements and abiotic elements of the sclerophyllous





				forest, such as xerophytic adaptations of plants to drought conditions • human activity and land use impacts upon patterns and processes within the sclerophyllous forest • the different values and viewpoints (environmental, economic and social) that shape the human use of the sclerophyllous forest • benefits of implementing sustainable practices within the sclerophyllous forest • the extent to which current land use practices are sustainable within the sclerophyllous forest
Fieldwork/ Practical Skills (30%)	10% 30 marks	Term 1 Week 2 Semester 1	Task 1 Mapping & Data Interpretation - Topographic Mapping	Mapping skills (use of maps and atlases) identify and interpret a variety of topographic maps, thematic maps (physical, political, and social maps, overlay maps, synoptic charts and climate maps) and statistical maps (proportional circle and dot distribution maps) at different scales (local, national and global) understand and interpret marginal information represented on maps (title, conventional signs contained in the legend, north point, numerical and linear scales) establish position on a map using alphanumeric grid coordinates, eastings and northings, four figure area references,





	six figure grid references, and latitude and longitude expressed in degrees and minutes
	 establish direction on a map using general compass directions (8 points) and bearings
	 interpret and express scale in written, linear and ratio (representative fraction) formats, and convert scale from one format to another
	 apply the map scale to basic calculations to determine distance and area
	 interpret relief on a map using contours and spot heights to describe the steepness and shape of a slope (concave, convex and uniform)
	 identify different relief features (landforms, including hills, valleys, plains, spurs, ridges, escarpments, saddles, cliffs) and different types of natural vegetation cover and hydrological features
	 construct simple annotated sketch maps using map conventions (border, title, legend, north point and approximate scale)
	 identify and interpret natural features and cultural features on a map
	 describe the site and situation of places





			 identify and describe spatial patterns, including land use, settlement and transport identify and describe spatial relationships between natural and cultural features
10% 20 marks	Term 1 Week 4 Semester 1	Task 2 Mapping & Data Interpretation - Topographic Mapping	 Mapping skills (use of maps and atlases) identify and interpret a variety of topographic maps, thematic maps (physical, political, and social maps, overlay maps, synoptic charts and climate maps) and statistical maps (proportional circle and dot distribution maps) at different scales (local, national and global) understand and interpret marginal information represented on maps (title, conventional signs contained in the legend, north point, numerical and linear scales) establish position on a map using alphanumeric grid coordinates, eastings and northings, four figure area references, six figure grid references, and latitude and longitude expressed in degrees and minutes establish direction on a map using general compass directions (8 points) and bearings interpret and express scale in written, linear and ratio (representative fraction) formats, and convert scale from one format to another apply the map scale to basic calculations to determine distance and area





			 interpret relief on a map using contours and spot heights to describe the steepness and shape of a slope (concave, convex and uniform) identify different relief features (landforms, including hills, valleys, plains, spurs, ridges, escarpments, saddles, cliffs) and different types of natural vegetation cover and hydrological features construct simple annotated sketch maps using map conventions (border, title, legend, north point and approximate scale) identify and interpret natural features and cultural features on a map describe the site and situation of places identify and describe spatial patterns, including land use, settlement and transport
			identify and describe spatial relationships between natural and cultural features
10% 25 marks	Term 1 Week 7 Fieldwork Semester 1	Task 5 PART A - Perth Hills Discovery Centre (5%) Practical skills collecting and interpreting primary information and/ or data and using Geographical inquiry skills. PART B - Students complete a fieldwork booklet.(10%)	Fieldwork skills (use of field observations and measurements) Collect primary data using field techniques, including: surveys and interviews, observing and recording, listening, questioning, sketching and annotating, measuring and counting, photographing and note-taking Collate field data using techniques, including: listing, tabulating, report writing, graphing, constructing diagrams and mapping





				analyse and interpret primary data
		Term 1 Week 6 Semester 1		the concepts of environment, biome and ecosystem
				biotic and abiotic elements of environments, biomes and ecosystems
				 the following ecosystem concepts: biodiversity food chains and webs biomass trophic levels pyramid of numbers pyramid of energy flows of matter and energy
Tests (40%)				the differences between natural and cultural features of environments
				the concept of sustainability
	20% Term 2 Week 5 37 marks Semester 1		Task 6	The interactions between the flora and fauna of biotic and abiotic elements of the sclerophyllous forest, biome or ecosystem
				location and distribution of the sclerophyllous forest
		A series of short response questions based on a sampling of the content from Unit 1	 characteristics of the following elements of the sclerophyllous forest: climate, including temperature and rainfall soils and landforms, including soil structure and topography flora and fauna, including dominant species and community structures 	





	 the interactions between the flora and fauna of the sclerophyllous forest, including the following ecosystem concepts: biodiversity food chains and webs biomass trophic levels pyramid of numbers pyramid of energy flows of matter and energy
	 interrelationships between biotic elements and abiotic elements of the sclerophyllous forest, such as xerophytic adaptations of plants to drought conditions
	 human activity and land use impacts upon patterns and processes within the sclerophyllous forest
	cultural landscapes associated with the sclerophyllous forest
	 economic, political and social factors that impact upon decisions about sustainability of the sclerophyllous forest
	the different values and viewpoints (environmental, economic and social) that shape the human use of sclerophyllous forest
	benefits of implementing sustainable practices within the sclerophyllous forest
	the extent to which current land use practices are sustainable within the sclerophyllous forest





				measures by which humans are caring for the sclerophyllous forest; and the extent to which these measures have been successful.
Total	100%	100%		

PLEASE NOTE: ASSESSMENT DATES MAY CHANGE DUE TO SCHOOL COMMITMENTS AND CHANGES TO THE SCHOOL CALENDAR





Geographical inquiry skills

Observing, questioning and planning

- formulate geographical inquiry questions
- plan a geographical inquiry with clearly defined aims and appropriate methodology

Collecting, recording, evaluating and representing

- collect geographical information incorporating ethical protocols from a range of primary (interviews, questionnaires, student's own experiences, and field observations) and secondary sources (online maps, websites, spatial software applications, print resources and visual media)
- record observations in a range of graphic representations using spatial technologies and information and communication technologies
- evaluate the reliability, validity and usefulness of geographical sources and information
- acknowledge sources of information and use an approved referencing technique

Interpreting, analysing and concluding

- analyse geographical information and data from a range of primary and secondary sources and a variety of perspectives to draw reasoned conclusions and make generalisations
- identify and analyse relationships, spatial patterns and trends and makes predictions and inferences

Communicating

- communicate geographical information, ideas, issues and arguments using appropriate written and/or oral, cartographic, multimodal and graphic forms
- use geographical language in appropriate contexts to demonstrate geographical knowledge and understanding

Reflecting and responding

- apply generalisations to evaluate alternative responses to geographical issues at a variety of scales
- propose individual and collective action, taking into account environmental, social and economic factors and predict the outcomes of the proposed action
 The **General Capabilities** of Literacy, Numeracy, Information and Communication Technology (ICT), Critical and Creative Thinking, Personal and Social Capability, Ethical
 Understanding, Intercultural Understanding and the **Cross Curriculum Priorities** of Aboriginal and Torres Strait Islander Histories and Cultures, Asia and Australia
 engagement with Asia and Sustainability are embedded throughout the unit.





Geographical skills

Mapping skills (use of maps and atlases)

- identify and interpret a variety of topographic maps, thematic maps (physical, political, and social maps, overlay maps, synoptic charts and climate maps) and statistical maps (proportional circle and dot distribution maps) at different scales (local, national and global)
- understand and interpret marginal information represented on maps (title, conventional signs contained in the legend, north point, numerical and linear scales)
- establish position on a map using alphanumeric grid coordinates, eastings and northings, four figure area references, six figure grid references, and latitude and longitude expressed in degrees and minutes
- establish direction on a map using general compass directions (8 points) and bearings
- interpret and express scale in written, linear and ratio (representative fraction) formats, and convert scale from one format to another
- apply the map scale to basic calculations to determine distance and area
- interpret relief on a map using contours and spot heights to describe the steepness and shape of a slope (concave, convex and uniform)
- identify different relief features (landforms, including hills, valleys, plains, spurs, ridges, escarpments, saddles, cliffs) and different types of natural vegetation cover and hydrological features
- construct simple annotated sketch maps using map conventions (border, title, legend, north point and approximate scale)
- identify and interpret natural features and cultural features on a map
- describe the site and situation of places
- identify and describe spatial patterns, including land use, settlement and transport
- identify and describe spatial relationships between natural and cultural features





Remote sensing skills (use of remote sensing products, such as ground level photographs, aerial photographs, radar imagery and satellite imagery)

- identify and describe natural and cultural features and their patterns on the Earth's surface using ground level photographs, aerial photographs (vertical and oblique), radar imagery and satellite imagery (Landsat, weather satellites and Google Earth)
- compare the different types of information available from remote sensing products with the information depicted on a topographic map
- use remote sensing products as an aid to interpreting natural and cultural features shown on topographic maps
- determine direction on remote sensing products
- apply scale to the calculation of distance on remote sensing products
- interpret the difference in scale between a photograph and a topographic map of the same place

Geographical and statistical data skills (use of geographical and statistical data in formats, such as maps, tables, graphs and diagrams)

- calculate and interpret descriptive statistics, including central tendency (arithmetic mean, median, mode) and variation (maximum, minimum and range)
- interpret and apply data from different types of statistical maps (isopleth/isoline, choropleth, proportional circle and dot distribution maps)
- interpret and construct tables and graphs, including: picture graphs; line and bar graphs; scattergrams; climatic graphs; pie graphs; flowcharts and population pyramids
- use simple systems and flow diagrams to organise thinking about relationships
- extrapolate trends over time to forecast future conditions

Skills in the use of information and communications technology and geographical information systems (in a geographic context)

- use the internet as a tool for geographical research
- use simple applications, software and online resources (including Google Earth and Google Maps) to access atlases and remote sensing products (photographs, radar imagery and satellite imagery) for the purpose of identifying and describing spatial patterns and relationships
- access databases, such as the Bureau of Meteorology, for spatial and statistical information





- use geospatial technologies, including global positioning systems (GPS), to collect and map spatial data
- use simple geographical information systems (GIS) products in description and analysis

Fieldwork skills (use of field observations and measurements)

- collect primary data using field techniques, including: surveys and interviews, observing and recording, listening, questioning, sketching and annotating, measuring and counting, photographing and note-taking
- collate field data using techniques, including: listing, tabulating, report writing, graphing, constructing diagrams and mapping
- analyse and interpret primary data