Human Society and Its Environment

Geography K-10

Teaching and Learning Framework
A process for geographical inquiry

**Acquire data and information**
Locate, collect, gather and record primary and secondary geographical data and information.

**Question**
Use geographical language to ask questions about an issue or problem in the world around you.

**Represent**
data and information in appropriate forms.

**Evaluate**
data and information for reliability and bias.

**Interpret**
data and information for geographical relationships, patterns and trends.

**Analyse**
findings and results to draw conclusions.

**Communicate and respond**
- Present geographical information using a variety of appropriate strategies for purpose and audience
- Propose individual or group action in response to the inquiry findings
- Take action as appropriate.
**EARLY STAGE 1 GEOGRAPHY: My school grounds**

<table>
<thead>
<tr>
<th>Focus area: People live in places</th>
<th>Aboriginal and Torres Strait Islander Places</th>
<th>Locating Places</th>
</tr>
</thead>
</table>

**Important places**

**Key inquiry questions**

- What are places like?
- What makes a place special?
- How can we look after the places we live in?

**Content focus**

**Students:**

- explore the places they live in and belong to
- develop an understanding of what makes a place special and how this may differ for different people
- learn about the importance of looking after places
- explore how the location of places can be represented

**Outcomes**

A student:

- identifies places and develops an understanding of the importance of places to people **GEe-1**
- communicates geographical information and uses geographical tools **GEe-2**

**Overview**

The geographical inquiry process will identify the importance of places that students belong to and why they are special. Through investigation of a local geographical issue, students will examine why people need to take care for these places.

This learning is shaped by four small inquiries, which vary in length.

**Assessment**

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
### Locating places

**Students:**
- investigate how the location of places can be represented, for example: (ACHGK001)
  - location of familiar and local places on maps  
  - description of the location of places

### Inquiry 1 – Classroom pictorial map

**Students develop a pictorial map of the classroom to represent furniture and objects in the room.**

**Acquiring geographical information**

**Question:**
- How are places represented?
  - What is a map?
  - What is its purpose?
  - Why do we need maps?
  - How is a map made?

**Acquire data and information:**
- Use a variety of strategies to support students to understand the purpose and characteristics of maps.
- Use the picture book, *My Map Book* by Sara Fanelli, to support the explanation of pictorial maps as a geographical tool. Describe the features of maps to students with a focus on pictorial maps of schools and familiar places, including an example of a picture map of a bedroom and classroom.
- View examples of maps of the school, e.g. site map, evacuation map, Google map (virtual map) and satellite image.
- Develop a practical understanding of ‘birds’ eye view’ or ‘looking down’ using construction toys. Build 3D models and view them from a variety of points of view.
- Take digital photographs of the 3D models from various points of view.

**Processing geographical information**

Jointly construct a pictorial map of the classroom:
- Consider the spatial arrangement of furniture and other 3D objects in the classroom.
- Consider how 3D objects are represented on a map, consider size and scale in relation to each other.
- Compare and discuss the point of view in the photographs of the 3D model. Guide students to develop understanding of point of view and the spatial arrangements of objects.

**Communicating geographical information**

**Communicate:**
- Students draw the classroom as a pictorial map and provide a verbal explanation of the spatial relationships of objects represented.

**Respond:**
- Discuss ways of caring for the classroom, e.g. keeping it tidy.
Important places

Students:
- investigate the importance of places they live in and belong to, for example: (ACHGK002, ACHGK004)
  - identification of places they live in and belong to
  - discussion of why places are special and how people care for them
  - explanation of why people need to take care of places

Locating places

Students:
- investigate how the location of places can be represented, for example: (ACHGK001)
  - location of familiar and local places on maps
  - description of the location of places

Inquiry 2 – Important places at school

Explore important places in the school grounds.

Acquiring geographical information

Question:
What are places like?
- What are important places in our school?
- What are the features of important places in our school?
- Why are places in our school in their current location?
- How do people use these places?
- Why do we need to look after our school?
- How can we care for our school?

Acquire data and information:

Fieldwork:
- Walk around the school and observe and identify the natural and human features.
- Take photographs to record places in the school.
- Identify the locations of features using the language of position to describe these features in relation to each other, e.g. between, next to, behind.
- Discuss uses of places and relate to their location. This develops spatial awareness.
- Create a tally chart of the places used by ES1 students.

Processing geographical information

- Work collectively on the IWB or provide a large blank school map and have students position and paste their photographs to correspond with their location.
- Add a symbol to each of the places used by Early Stage 1 students. Cross reference this to the tally chart.
- Label the features and their use, e.g. silver seats - for lunch.
- Discuss location and organisation to develop spatial awareness.
- Discuss ways of caring for different places in the school.

Communicating geographical information

Communicate and respond:
Organise students to draw and describe an illustration of a place they use frequently in the school environment.

This is the _______________.
We use this place for _______________.
This place is special because _______________.
We look after this special place by _______________.

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HSIE K-6: Geography
March 2016
Learning and Teaching Directorate

NSW | Education
Public Schools
Aboriginal and Torres Strait Islander places

Students:

- investigate the Country/Places important to Aboriginal or Torres Strait Islander Peoples, for example: (ACHGK003)
  - identification of an Aboriginal or Torres Strait Islander site, Country or Place
  - discussion of why the site, Country or Place is important

Inquiry 3 – Local Aboriginal places

Students begin to learn the history and culture of the Aboriginal people in which the school is located.

Acquiring geographical information

Question:
What makes a place special?

- Who lived here before we did?
- What are some of the places which are important to Aboriginal people?
- Why is the land so important to Aboriginal people?

Acquire data and information:

- Identify the local Aboriginal tribal language group in which your school is located. Reference the school's Acknowledgement of Country.
- Identify and describe some of the places important to local Aboriginal people such as significant landform features, water sources, camp sites, trails.
- Engage with Community, Elders, storytelling, photographs and shared experiences of visits to local places of Aboriginal significance.

Processing geographical information

- Construct photograph collages to represent important local Aboriginal places.
- Use multimedia apps to organise video recordings of stories and photographs, landform features and sites.
- Support students to draw conclusions, through guided discussions about the places which are significant to the local Aboriginal people and how the land supported their culture.

Communicating geographical information

Communicate:

Students provide a verbal response to the question: What makes a place special? This could be recorded and accompanied by student-selected photographs and illustrations in a multimedia format.

Respond:
Discuss ways of respecting and caring for special places.
Important places

Students:

- investigate the importance of places they live in and belong to, for example:
  (ACHGK002, ACHGK004)
  - discussion of why places are special and how people care for them
  - explanation of why people need to take care of places

Inquiry 4 – Taking care of our place

Examine the geographical issue of litter in the school grounds and explain why people need to take care of their environment.

Acquiring geographical information

Question:

Why do we need to put our litter in the bin?

- Is there litter in our school? Where?
- Why is there litter in our school?
- What is the impact of litter in our school?
- How can we reduce litter and take care of our school?

Acquire data and information:

Fieldwork:

- Walk around the school to observe and photograph places that contain litter. Observe use of the area and its location, e.g. lunch area, close to canteen.
- Plot places with litter on a map of the school.
- Collect litter from an area typically used by Early Stage 1 students, for sorting and analysis.
- Observe and discuss ways that the school grounds are looked after.

Processing geographical information

- Sort the litter according to source, e.g. from home, canteen products, homework notes. Place the litter on the ground to create a 3D pictograph to represent the quantity of each according to predicted source. Interpret the data.
- Discuss location of litter in relation to uses of places to develop understandings of cause and effect.
- Brainstorm the impacts of litter in the school environment, e.g. aesthetics, birds feed on it, washes into drains.
- Discuss connections between the roles of multiple participants in the maintenance of the school, e.g. students, teachers, cleaners, parents, visitors.
- Discuss and role play ways to reduce litter in the school environment.

Communicating geographical information

Communicate:

Students create a visual concept map illustrating how people, including themselves, care for the school.

Respond:

Students create a sequence of drawings to illustrate what they do with litter at school. Record students' verbal explanations of their illustrations for sharing with other students in the school.
<table>
<thead>
<tr>
<th>Geographical concepts</th>
<th>Geographical inquiry skills</th>
<th>Geographical tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following geographical concepts have been integrated into the teaching and learning sequence:</td>
<td>The following geographical inquiry skills have been integrated into the unit:</td>
<td>The following geographical tools have been integrated into the unit. These are indicated through underlined text. Examples may include:</td>
</tr>
</tbody>
</table>
| **Place**: the significance of places and what they are like eg places students live in and belong to and why they are important. | **Acquiring geographical information**  
- pose questions and make observations (ACHGS001)  
- record geographical data and information (ACHGS002) | **Maps** – M  
- pictorial maps |
| **Space**: the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in eg location of a place in relation to other familiar places. | **Processing geographical information**  
- represent data using charts or graphs (ACHGS003)  
- draw conclusions based on discussions of observations (ACHGS004) | **Fieldwork** – F  
- observing and recording data |
| **Environment**: the significance of the environment in human life, and the important interrelationships between humans and the environment eg how and why places should be looked after. | **Communicating geographical information**  
- present information (ACHGS005)  
- reflect on their learning (ACHGS006) | **Graphs and statistics** – GS  
- tally charts, pictographs |
| **Spatial technologies** – ST  
- virtual maps | | **Visual representations** – VR  
- photographs, illustrations, story books, multimedia |
## STAGE 1 GEOGRAPHY: Aboriginal connections

### Focus area: People and places

<table>
<thead>
<tr>
<th>Local and global connections</th>
</tr>
</thead>
</table>

### Key inquiry question

- How are people connected to places?
- What factors affect people’s connections to places?

### Content focus

**Students:**
- describe connections people, including Aboriginal and Torres Strait Islander Peoples, have with places.

### Outcomes

A student:
- describes features of places and the connections people have with places **GE1-1**
- communicates geographical information and uses geographical tools for inquiry **GE1-3**

### Overview

The geographical inquiry process will identify the Aboriginal and Torres Strait Islander connections to place, including spiritual connections. Through investigation of yarns, stories, language terms and symbols, including engagement with local Aboriginal people, students will examine the significance of place to personal well-being.

### Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
People’s connections to places
Students:
- investigate people’s connections and access to places, for example: (ACHGK013)
  - discussion of why people visit other places

Inquiry – Local connections to place
Students write a poem that describes their special place. They discuss the need to care for their special place and describe the significance of Aboriginal and Torres Strait Islanders' spiritual connection to place.

Acquiring geographical information
Question:
- How do Aboriginal and Torres Strait Islander Peoples show their connections to country? (spiritual connections to land, plants and animals, water and sea).

Acquire data and information:
- Reference a picture book to use with students such as You and Me, Our Place by Leonie Norrington. A reading of this is available on YouTube.
- Reference some videos of oral recounts about Aboriginal people’s connection to the land such as that told by Clive ‘Bidja’ Atkinson in The land is your mother.
- Work with the local AECG or Land Council to access local elders and community to share their yarnings about local places and culture.
- Reference local knowledge and maps to identify place names and local language terms.
- Examine art works by Aboriginal artists which describe their spiritual connection to place.

Processing geographical information
- Students develop a concept map to organise and classify information into 'traditional language', 'natural features' and 'Aboriginal spiritual connections'.
- Develop a word bank of local Aboriginal place names, and local language terms.
- Students use a table to categorise the human and natural features that are of Aboriginal significance.
- Students work in groups to discuss the variety of Aboriginal connections to land.
- Develop a table of symbols with descriptions of the ways connection to places are represented and described. Consider:
  - Why are places special?
  - What stories and traditional language describe Aboriginal connections to places?
  - What activities occur there, or could occur?
  - What natural or human areas do Aboriginal people have connections with? How are these described in yarns and through symbols?
  - What are some of the rules that govern places of spiritual significance?
<table>
<thead>
<tr>
<th><strong>How are these places cared for?</strong></th>
</tr>
</thead>
</table>

**Communicating geographical information**

**Communicate:**
Students write a **poem** about their special place, which may be in the local area, using descriptive words to describe their connection to this place.

**Respond:**
Students add a statement on how they would feel if this place was not cared for, and relate to Aboriginal people’s spiritual connection to place.
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<td><strong>Geographical concepts</strong></td>
<td><strong>Maps</strong> – M</td>
</tr>
<tr>
<td><strong>Space:</strong> the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in eg where activities are located and how spaces can be organised.</td>
<td><strong>Geographical inquiry skills</strong></td>
<td>• pictorial maps, large-scale maps, world map, globe</td>
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<td><strong>Environment:</strong> the significance of the environment in human life, and the important interrelationships between humans and the environment eg natural and human features of a place; daily and seasonal weather patterns of places.</td>
<td><strong>Geographical tools</strong></td>
<td><strong>Fieldwork</strong> – F</td>
</tr>
<tr>
<td><strong>Interconnection:</strong> no object of geographical study can be viewed in isolation eg local and global links people have with places and the special connection Aboriginal and Torres Strait Islander Peoples maintain with Country/Place.</td>
<td></td>
<td>• observing, collecting and recording data, conducting surveys</td>
</tr>
<tr>
<td><strong>Scale:</strong> the way that geographical phenomena and problems can be examined at different spatial levels eg various scales by which places can be defined such as local suburbs, towns and large cities.</td>
<td></td>
<td><strong>Graphs and statistics</strong> – GS</td>
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<td></td>
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<td>• tally charts, pictographs, data tables, column graphs, weather data</td>
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<td><strong>Spatial technologies</strong> – ST</td>
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<td>• virtual maps, satellite images</td>
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<td></td>
<td></td>
<td><strong>Visual representations</strong> – VR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• photographs, illustrations, diagrams, story books, multimedia, web tools</td>
</tr>
</tbody>
</table>
# STAGE 1 GEOGRAPHY: Around the world

## Focus area: People and places

### Local and global connections

### Key inquiry question

- How are people connected to places?
- What factors affect people’s connections to places?

### Content focus

**Students:**

- explore places across a range of scales
- explore Australia’s location in the world
- describe connections people, including Aboriginal and Torres Strait Islander Peoples, have with places.

### Outcomes

A student:

- describes features of places and the connections people have with places **GE1-1**
- communicates geographical information and uses geographical tools for inquiry **GE1-3**

### Overview

The geographical inquiry process will support students to investigate their connection to a place overseas, either through a personal connection or through a product they use. Students will locate the place, investigate its features, and transport and access to the place.

**Note:** The syllabus requires investigation of local and global connections. This teaching framework addresses only global connections. There is a separate teaching framework focusing on local connections of Aboriginal and Torres Strait Islander Peoples titled *Aboriginal connections*.

### Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
Local and global connections

Students:
• investigate connections that people, including Aboriginal and Torres Strait Islander Peoples, have to local and global places, for example: (ACHGK010, ACHGK011, ACHGK012)
  – description of reasons people are connected to places in Australia and/or countries across the world e.g birthplace

Inquiry – Personal connections to overseas places

Students become a travel tour guide. Their role is to provide a brief description a place in another country that they have connections with.

The connection can be a personal connection to a place, e.g. place of birth or holiday destination. For students who do not have overseas personal connections, they could pick a product or food that they like and investigate the country of its source, e.g. nachos from Mexico, joggers made in China.

A diversity of locations and countries should be supported through the geographical inquiry.

Acquiring geographical information

Two options are provided for this inquiry. The preferred option will depend on the local context of the school and community. Communities will have students with a diversity of international backgrounds and travel experiences while others will not.

Question:

Option 1
- Where will we go? And how will we get there?

Option 2
- Where do the products we use, and the international food products we eat, come from? How did they get here?

Make adjustments as required in the teaching and learning to align with the inquiry questions for the option selected.

Acquire data and information:
- Brainstorm places that students are familiar with personally through family connections or through international products and foods.
- Locate these places on a large world map displayed in the classroom.

For their selected location, support students to:
- Collect photographs showing the natural and human features of the place.
- Access information and photographs about the life and people of the place.
- Use travel websites to collect information on travel mode and travel time to the place.
- Record videos of parent and grandparent oral recounts of their connections to the place.
- Interview overseas family or friends via Skype, or similar, about the place.

Processing geographical information

Support students to:
- Plot their chosen location on a class world map.
- Add selected **photographs and information** to the class, linking them to their location.

- Label the natural and human features of each location.

- Create a **table** of transport modes to the chosen location, including the travel time for each mode.

- Develop a set of **symbols** that denote the types of connections people have to overseas places, e.g. birth, family, heritage, favourite food, holiday destination. Add the symbols to the world map.

- Use ‘pair and share’ to discuss the variety of connections to places around the world.

- As a class, reflect on the information collected and discuss:
  - What do you know about these places?
  - How long does it take to travel to these places?
  - What natural or human features are represented in the places?
  - What places would you like to visit? Why or why not?
  - What is one feature of an overseas place that you think is really interesting? Why?

**Communicating geographical information**

**Communicate:**

Students develop a brief **presentation** about their selected location to which they have connections. They include a world map of its location, photographs of the place, the mode of transport and travel time. Students include an explanation of their connection to the place.

**Respond:**

Students write a statement about the personal significance of the place.
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<tr>
<td><strong>Acquiring geographical information</strong></td>
<td>• pose geographical questions (ACHGS007, ACHGS013)</td>
<td>Maps – M</td>
</tr>
<tr>
<td></td>
<td>• collect and record geographical data and information, for example, by observing, by interviewing, or using visual representations (ACHGS008, ACHGS014)</td>
<td>• pictorial maps, large-scale maps, world map, globe</td>
</tr>
<tr>
<td><strong>Processing geographical information</strong></td>
<td>• represent data by constructing tables, graphs or maps (ACHGS009, ACHGS015)</td>
<td>Fieldwork – F</td>
</tr>
<tr>
<td></td>
<td>• draw conclusions based on the interpretation of geographical information sorted into categories (ACHGS010, ACHGS016)</td>
<td>• observing, collecting and recording data, conducting surveys</td>
</tr>
<tr>
<td><strong>Communicating geographical information</strong></td>
<td>• present findings in a range of communication forms (ACHGS011, ACHGS017)</td>
<td>Graphs and statistics – GS</td>
</tr>
<tr>
<td></td>
<td>• reflect on their learning and suggest responses to their findings (ACHGS012, ACHGS018)</td>
<td>• tally charts, pictographs, data tables, column graphs, weather data</td>
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# STAGE 1 GEOGRAPHY: Australian places

## Focus: People and places

<table>
<thead>
<tr>
<th>Australian places</th>
<th>Australia’s location</th>
<th>People’s connections to places</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
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</tbody>
</table>

### Key inquiry question
- Where are places located in Australia?
- How are people connected to places?
- What factors affect people’s connections to places?

### Content focus

Students:
- explore places across a range of scales within Australia
- explore Australia’s location in the world
- identify factors affecting people’s accessibility to places

### Outcomes

A student:
- describes features of places and the connections people have with places **GE1-1**
- communicates geographical information and uses geographical tools for inquiry **GE1-3**

### Overview

The geographical inquiry process will locate the students’ place at personal, local, national and global scales. Students will examine a range of places at the national scale, the reasons people visit places, and factors affecting peoples’ access to places. Students will also analyse their personal connections to places they visit.

This learning is shaped by three small inquiries, which vary in length.

### Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
<table>
<thead>
<tr>
<th><strong>Australian places</strong></th>
<th><strong>Inquiry 1: Where am I?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Students:</td>
<td>Students investigate their place in the world. They correctly address an envelope to themselves and provide an explanation of the meaning of each address line from a geographical perspective.</td>
</tr>
<tr>
<td>- investigate places across a range of scales within Australia, for example: (ACHGK010)</td>
<td>As a pre-test, ask students to address an envelope to themselves at their street address.</td>
</tr>
<tr>
<td>- identification that places exist across a range of scales eg personal, local, national</td>
<td><strong>Acquiring geographical information</strong></td>
</tr>
<tr>
<td><strong>Australia's location</strong></td>
<td><strong>Question:</strong></td>
</tr>
<tr>
<td>Students:</td>
<td>- What is my street address? (personal scale)</td>
</tr>
<tr>
<td>- investigate Australia’s location in the world, for example: (ACHGK009)</td>
<td>- Where is my local area? (local scale)</td>
</tr>
<tr>
<td>- description of Australia’s location in relation to the world eg continents, oceans</td>
<td>- What state do I live in? (regional scale)</td>
</tr>
<tr>
<td></td>
<td>- Where is my home on a map of Australia? (national scale)</td>
</tr>
<tr>
<td></td>
<td>- Where is my home on a map of the world? (global scale)</td>
</tr>
<tr>
<td><strong>Acquire data and information:</strong></td>
<td><strong>Acquiring geographical information</strong></td>
</tr>
<tr>
<td>- Tell a story or read a picture book to the class about locating the students in their place with reference to different scales, such as <em>Me on the Map</em> by Joan Sweeney and Annette Cable (available on YouTube). This story can be read to the class or used as a model to tell as a story with appropriate Australian illustrations and maps.</td>
<td>Question:</td>
</tr>
<tr>
<td>- View the local area in Google maps in both map view and satellite view to locate the school and students’ streets. Identify the location as the suburb/town. Relate this to the suburb/town and postcode address line on an envelope. (local scale)</td>
<td>- What is my street address? (personal scale)</td>
</tr>
<tr>
<td>- Students work with a partner and use Google maps satellite view to locate their home by typing in their street address. They view their home and street on Street View and share experiences of living there, their street and neighbours. Relate this to the person, street number and street name of an address on an envelope. (personal scale)</td>
<td>- Where is my local area? (local scale)</td>
</tr>
<tr>
<td>- View a map of Australia that shows the state and territory boundaries. Locate NSW, Sydney as the capital city and the students’ suburb/home town/city on the map. Relate this to the country (supplementary) address line on an envelope. (national scale)</td>
<td>- What state do I live in? (regional scale)</td>
</tr>
<tr>
<td>- Locate Australia on a globe and a world map. Compare the representations. Describe Australia’s location on the globe in relation to other continents using language such as ‘left’, ‘right’, ‘location’, ‘position’.</td>
<td>- Where is my home on a map of Australia? (national scale)</td>
</tr>
<tr>
<td>- Students annotate a screen shot of the satellite view or Street View of their home using an annotation app such as Explain Everything or Skitch. Students label features of their home, e.g. driveway, floor (storey), balcony, yard, street. (personal scale)</td>
<td>- Where is my home on a map of the world? (global scale)</td>
</tr>
<tr>
<td>- Students construct a pictorial map of their favourite room in their house. Discuss why ‘my bedroom’ doesn’t go in an address on an envelope. (personal scale)</td>
<td>Processing geographical information</td>
</tr>
</tbody>
</table>
− Students annotate a screen shot of the satellite view of the local area, either printed or using an annotation app such as Skitch. They label the school, local park and other facilities used by students. Use the suburb/town/city name as the map title. (local scale)

− Students colour and label the states and territories on a political map of Australia. They plot and label Sydney and their suburb/town on the map of Australia. (national scale)

− Students colour and label Australia on an outline world map. They locate Sydney and their town on the map. Support students to write statements that describe Australia’s location in relation to other major continents. (global scale)

Communicating geographical information

Communicate:
Students correctly address an envelope to themselves. They provide a verbal explanation of the meaning of each address line from a geographical perspective.

Respond:
Students write a sentence or draw a picture that reflects on their learning and answers the question: Where am I? If funds permit, this can be mailed in the self-addressed envelope.

Learning connection
Australian places
Students:
• investigate places across a range of scales within Australia, for example:
  (ACHGK010)
  – identification that places exist across a range of scales eg personal, local, national

People’s connections to places
Students:
• investigate people’s connections and access to places, for example:
  (ACHGK013)
  – discussion of why people visit other places
  – identification of factors influencing people’s accessibility to places eg distance
  – examination of how technology has improved people’s access to places

Inquiry 2: A trip to Perth
Students investigate the routes, modes of transport and location of places for an imaginary trip from their home to Perth. They create a visual or video imaginary recount of part of a trip to Perth.

Acquiring geographical information
Question:
What is the best way to travel to Perth?
– Where is Perth in relation to my home?
– Why do people travel to Perth and other places?
– How do people travel to Perth?
– What factors affect travelling to Perth and other places?
– How has technology changed people’s access to places?

Acquire data and information:
– View a travel video on Perth, e.g. Perth Vacation Travel Guide by Expedia.
– View photographs of Perth travel destinations in Google Images.
– Locate Perth, Sydney and the students’ home town/city on a political map of Australia. Locate places in Australia familiar to the students, e.g. holiday destinations, nearby towns.
– Read the picture book Possum Magic by Mem Fox and Julie Vivas. List the places that ‘Hush’ and ‘Grandma Poss’ visit in Australia.
– Discuss the reasons people visit places, e.g. holidays, visit relatives, parents’/carers’ work, stop-overs.
– Pose the imaginary scenario that a family is going to travel to Perth for a holiday and want to see as much of Australia as they can along the way. The class are the travel consultants and are to provide advice on how to get there and what to see on the way.
– Use the route feature in Google maps to find the distance to Perth from home by car. Interpret the distance in relation to familiar trips, e.g. Dubbo to Orange takes nearly two hours; Dubbo to Perth is twenty Dubbo to Orange trips.
– Explore the driving route in satellite view, zooming in and out to explore the landscape. Use Street View when available to view places at street level.
– As a class, use the 3D tour feature in Google Earth to ‘fly’ the road route between your home location and Perth. Record for future viewing. Discuss the use of this tool in providing virtual access to places.
– Discuss other transport options for travelling to Perth, e.g. train, plane. Collect information on each mode of transport to Perth, e.g. travel time, stops along the way, cost, starting location.
– Collect brief information and photographs on past travel modes to Perth, e.g. horse, camel, ships, steam train.
- View the Great Southern Rail website and digital brochure that maps and illustrates the train journey to Perth. Collect photographs of views from the train.
- Collect information on the features and attractions of some of the towns on the route to Perth.
- Reflect on the use of technology and digital tools in the information acquisition process, e.g. satellite images, Street View, Google Earth 3D tours. Identify other digital apps and tools that enable virtual access to places and people in Australia and other countries, e.g. webcams, Skype, FaceTime.

**Processing geographical information**

- Display and label photographs of Perth travel destinations.
- Display a large political map of Australia. Plot Perth, Sydney, the students’ home town/city, places in Australia familiar to the students and places visited by ‘Hush’ and ‘Grandma Poss’ in Possum Magic.
- Students create a concept map or comparison table that identifies: Hush’s reasons for visiting places; the student’s personal reasons for visiting places; and other reasons people visit places.
- On the large political map of Australia, plot the road route from home to Perth and the main towns along the way. Display and label photographs of towns that would be potential overnight stops, connected to their location on the map.
- On the large political map of Australia, plot the train route to Perth and plot the towns stopped at along the journey.
- Display and label photographs of towns and landscapes along the journey, connecting the photographs to their location on the map of Australia.
- Collate information on the towns on the route to Perth in a table or mini-fact sheets.
- Set-up a corner of the room as a recreated carriage on the Indian Pacific as shown in the digital brochure. ‘Step into’ photographs in the brochure and role play experiences on the journey, e.g. sites out the windows, meals, stops along the way. Change the photographs of scenery daily to recreate the journey.
- Construct a comparison table that summarises the information on each transport mode to Perth:

<table>
<thead>
<tr>
<th></th>
<th>Plane</th>
<th>Train</th>
<th>Car</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stops on route</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cost per person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stops on way</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting location</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Create a table or annotated photograph collage of past transport modes. Discuss the impact of changes in transport modes and infrastructure.
- Evaluate and analyse the information collected and represented. Discuss how the word 'best' can be interpreted for the imaginary family wanting to travel to Perth, e.g. Does it mean fastest, most comfortable, with the most sights to see, the most entertaining, or the cheapest? From the discussion, draw conclusions on the factors that affect people’s access to places. List the factors, e.g. time, affordability, remoteness, safety.

- Evaluate the alternatives in travelling to Perth using a Plus Minus Interesting chart. Using 'pair and share' strategies students make recommendations on the 'best' way to travel to Perth, explaining their reasons.

- Create a concept map illustrating digital tools used through geographical inquiry and how they provided virtual access to places in Australia. Add other examples of digital tools that enable virtual access to places and people in Australia and other countries.

**Communicating geographical information**

**Communicate:**

Using 'selfie' mode, students work in pairs to record a video of an imaginary recount of a day, or part of a day, travelling towards Perth. They explain their mode of transport and why that mode was chosen. Students describe landscapes and towns viewed along the way. They include a personal opinion on the imaginary journey and justification for the opinion. (Organise the video recording so it feels like a Skype session with a relative or record the video and collate with photographs in an app such as PicPlayPost.)

Alternatively, students create a photographic diary of a trip to Perth, arranging a series of photographs of towns and landscapes in chronological sequence from their home to Perth. Students indicate the location of each photograph on a map of Australia.

**Respond:**

Students identify personal connections to places. Using a placemat proforma, they draw and label four illustrations showing themselves visiting a place in Australia they have connections with.
Australian places

Students:
- investigate places across a range of scales within Australia, for example:
  (ACHGK010)
  - identification that places exist across a range of scales eg personal, local, national

People’s connections to places

Students:
- investigate people’s connections and access to places, for example:
  (ACHGK013)
  - discussion of why people visit other places
  - identification of factors influencing people’s accessibility to places eg distance

Inquiry 3 – Student-centred inquiry – My favourite place

Students create a short presentation on their favourite place to visit in Australia and their personal connections to the place. The research and preparation of the presentation can be an independent task at school or as a home task.

Acquiring geographical information

Question:
Where is my favourite place to visit and why do I like to visit it?
- Why do people visit places?
- How do people visit places (personal, spiritual)?
- What factors affect people’s connections to places?
- How does weather influence people’s connection to places?
- How does distance and accessibility influence people’s ability to travel?

Acquire data and information:

Students:
- Identify a place they like to visit at a regional or national scale, in liaison with their family/carers.
- Recall information on the location of the place; when, why and how they visit it; who they visit with; and who they see there.
- Source photographs and souvenirs of the place.
- Interview their family about their connections to the place.
- Identify factors that affect access to their favourite places.

Processing geographical information

Students:
- Locate the place on a map of Australia.
- Summarise the information on their connection to the place in a ‘where’, ‘when’, ‘why’, ‘how’ and ‘who’ table.
- Create an annotated photographic collage to explain the personal significance of the favourite place.
- Construct a concept map that explains personal connections to the place and connections of family members.
- List factors that affect access to their favourite places.

Communicating geographical information

Communicate and respond:

Using suitable presentation software, students develop a short presentation of their favourite place to visit. They include information and images with captions.

Collate students’ presentations into a class compilation and display a map of Australia with pins for marking the location for each student.
<table>
<thead>
<tr>
<th>Geographical concepts</th>
<th>Geographical inquiry skills</th>
<th>Geographical tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Place:</strong> the significance of places and what they are like eg location and features of local places and other places in the world</td>
<td><strong>Acquiring geographical information</strong></td>
<td><strong>Maps</strong> – M</td>
</tr>
<tr>
<td><strong>Space:</strong> the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in eg where activities are located and how spaces can be organised.</td>
<td>• pose geographical questions (ACHGS007, ACHGS013)</td>
<td>• pictorial maps, large-scale maps, world map, globe</td>
</tr>
<tr>
<td><strong>Environment:</strong> the significance of the environment in human life, and the important interrelationships between humans and the environment eg natural and human features of a place; daily and seasonal weather patterns of places.</td>
<td>• collect and record geographical data and information, for example, by observing, by interviewing, or using visual representations (ACHGS008, ACHGS014)</td>
<td><strong>Fieldwork</strong> – F</td>
</tr>
<tr>
<td><strong>Interconnection:</strong> no object of geographical study can be viewed in isolation eg local and global links people have with places and the special connection Aboriginal and Torres Strait Islander Peoples maintain with Country/Place.</td>
<td><strong>Processing geographical information</strong></td>
<td>• observing, collecting and recording data, conducting surveys</td>
</tr>
<tr>
<td><strong>Scale:</strong> the way that geographical phenomena and problems can be examined at different spatial levels eg various scales by which places can be defined such as local suburbs, towns and large cities.</td>
<td>• represent data by constructing tables, graphs or maps (ACHGS009, ACHGS015)</td>
<td><strong>Graphs and statistics</strong> – GS</td>
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<td></td>
<td>• draw conclusions based on the interpretation of geographical information sorted into categories (ACHGS010, ACHGS016)</td>
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<td><strong>Communicating geographical information</strong></td>
<td><strong>Spatial technologies</strong> – ST</td>
</tr>
<tr>
<td></td>
<td>• present findings in a range of communication forms (ACHGS011, ACHGS017)</td>
<td>• virtual maps, satellite images</td>
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</table>
STAGE 1 GEOGRAPHY: Local places and spaces

Focus area: Features of places

<table>
<thead>
<tr>
<th>Features of places</th>
<th>How places are organised</th>
</tr>
</thead>
</table>

Key inquiry question

• What are the features of, and activities in, places?
• How can we care for places?
• How can spaces within a place be used for different purposes?

Content focus

Students:

• investigate the natural and human features of places
• describe the reasons places change
• identify the active role of citizens in the care of places
• explore activities occurring in places
• explore how the spaces within places can be used for different purposes.

Outcomes

A student:

➢ describes features of places and the connections people have with places GE1-1
➢ identifies ways in which people interact with and care for places GE1-2
➢ communicates geographical information and uses geographical tools for inquiry GE1-3

Overview

The geographical inquiry process will identify the natural and human features of the school grounds and local neighbourhood and explore their location, uses and organisation. Through investigation of a geographical issue, students will examine interconnections between features, users and organisation of spaces. The geographical issue proposed can be amended to fit the local context.

This learning is shaped by five small inquiries, which vary in length.

Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
### Features of places

**Students:**
- investigate features of places and how they can be cared for, for example:
  - description of the natural and human features of places
  - consideration of how a place can be cared for eg a park, farm, beach, bushland

### How places are organised

**Students:**
- investigate activities that occur within places, for example: (ACHGK007, ACHGK008)
  - examination of why various activities in an area are located where they are eg school, shops

### Inquiry 1 – Natural and human features

**Students identify and describe the natural and human features of places.**

#### Acquiring geographical information

**Question:**
- What are natural and human features of places?
- Can places be used for a variety of purposes?

**Acquire data and information:**
- View a variety of photographs of places ranging from natural places, (e.g. wilderness area), a mix of natural and human, (e.g. marina), to human places, (e.g. city). With reference to the images create definitions of ‘human features’ and ‘natural features’.
- View a variety of photographs of places that students are familiar with that show a variety of human uses, e.g. Sydney Harbour, a waterway, a recreation area.

#### Processing geographical information

- Students organise and classify photographs into ‘mainly natural features’, ‘a mix of natural and human features’ and ‘mainly human features’.
- Students add a symbol to categorise the human and natural features of the places depicted.
- Students work in groups to identify and label the variety of human uses in the photographs.
- Analyse and discuss the interconnections between the natural and human features. Consider:
  - Why do you think it was built?
  - What activities occur there, or could occur?
  - What natural areas are used by people?
  - Can the place be used for different purposes?
  - Who might care for these places?

#### Communicating geographical information

**Communicate:**

Students draw an illustration or simple photo sketch of one of the places depicted in the photographs. They add themselves and their family to the sketch showing their predicted use of the area.

Students label the natural and human features and write a statement describing how they could use the area.

**Respond:**

Students add a statement on how they could care for the area.
### Features of places

**Students:**

- investigate features of places and how they can be cared for, for example: (ACHGK005) [v]
  - description of the natural and human features of places [sv]
  - discussion of the natural features of places identified in Aboriginal Dreaming stories and/or Legends of the Torres Strait [sv]

### Inquiry 2 – Mapping features of our school

**Students** draw a detailed map of the school as a pre-test, construct a map following their fieldwork and draw a map as the communication task (post-test).

#### Acquiring geographical information

**Question:**

- What does our school like from an aerial view?
- How is an aerial photograph and satellite image different to a map?
- How are natural and human features represented on a map?
- What symbols are used on maps and what is a legend?
- How do Aboriginal people represent natural and human features?
- How do Aboriginal people use symbols to tell complex stories about place and convey spiritual knowledge associated with places?

#### Acquire data and information:

Examine maps and satellite imagery:

- View a satellite image of the local area and locate the school. Identify the natural and human features of the school.
- Change the satellite image to map view and make comparisons between them.
- Analyse students’ current knowledge and understanding of mapping and mapping terminology, e.g. plan view (looking down), map title, map key, map symbols, direction, scale, specific names of natural and human features.
- Reference a junior atlas for specific examples to support students’ learning. Discuss features of maps including title, key, symbols to represent physical or human features, colours and compass symbol.

#### Fieldwork:

- Provide students with a blank outline map of the school. In the school grounds, guide students in orienting themselves on the map and identifying familiar features.
- On a walk around the school, students observe and take photographs of natural and human features that are important to them.
- With guidance, students mark on their outline map their location when taking each image. Number for later reference.

#### Explore Aboriginal use of symbols:

- Examine Aboriginal artworks that use symbols to depict features in their environment.
- Note: Background information can be accessed using search terms such as ‘Aboriginal art’ and ‘use of symbols’. Some artwork can be viewed as a plan map, showing a range of people and places. The significance of what is depicted will vary according to access to the appropriate local Aboriginal community knowledge. This is sometimes referred to as the ‘outside’ story for the general public, and the ‘inside’ story accessible only to those with the appropriate level of knowledge.
- Consider: What do you see? What is being represented? What do the symbols mean, individually and in combination?
- Liaise with local Aboriginal community or AECG to learn appropriate local stories associated with specific places.
- Participate in a cultural walk and art making.

Processing geographical information

Construct a large-scale map of the school:
- Students place photographs of the features in their correct location on the outline map of the school, digitally or by pasting printed images. Guide students to include a border and title.
- Students explain their selection of photographs, e.g. 'we chose the toilets because everyone uses them so we think they are important'.
- Identify and discuss reasons for the patterns of location of specific places in the school.
- With reflection on Aboriginal use of symbols, students create and add a personal symbol to indicate places of importance to them.
- Guide students in creating a legend to identify natural and human features e.g. colour code buildings according to use, grass area is green, gardens are brown, asphalt areas are grey, dotted line for walking ‘path’ and personal symbols for important places.

Communicating geographical information

Communicate:
Students draw their map of the school for a third time as a large-scale map applying and demonstrating their understandings. Students include a border, legend and title. Students verbally explain how they knew where to place each feature and the reasons for their selection of symbols in the key.

Respond:
Where appropriate, work with the local Aboriginal community to participate in the stories associated with drawing a map or creating an artwork for a specific place.
How places are organised

Students:

- investigate activities that occur within places, for example: (ACHGK007, ACHGK008)
  - discussion of why and how the spaces within places can be rearranged for different purposes eg street fair, school hall

<table>
<thead>
<tr>
<th>Inquiry 3 – Organisation of our classroom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students investigate why and how spaces within the school and classroom can be rearranged for different purposes.</td>
</tr>
</tbody>
</table>

**Acquiring geographical information**

**Question:**

- Does the organisation of our classroom suit what it is used for?
- Can spaces in the school be used differently to the way they are now.
- How can our classroom be rearranged for different purposes?
- Can the classroom be reorganised to be a better learning space?

**Acquire data and information:**

**Fieldwork** – school spaces:

- Visit and observe spaces in the school that are rearranged for varying purposes, e.g. school hall, school oval. Reference photographs showing different arrangements for different purposes, e.g. chairs out for performances, stalls out for market days.

**Classroom:**

- Observe and discuss the reasons for the organisation of the furniture and spaces in the classroom.
- Conduct a survey on the students’ favourite and least favourite spaces in the classroom and changes they would like.

**Processing geographical information**

- Annotate photograph collages of the various rearrangements of school spaces, e.g. COLA at assembly, at Easter parade, on ANZAC Day, at Education Week.
- Construct a pictograph representing the most and least favourite spaces in the classroom. Interpret the data.
- Collate the classroom layout changes desired by students and represent using a concept map or column graph, depending on the breadth of suggestions. Interpret and discuss the results.

**Communicating geographical information**

**Communicate:**

Students collaboratively plan and map a reorganisation of the classroom space so that it can be used for a different purpose, such as a shop, concert, museum, movie theatre, library, hospital.

Student present and describe their maps to the class.

**Respond:**

Students reflect on the graphed survey results and plan changes to their classroom as a learning space. They use 3D materials or mapping to propose a reorganisation of the spaces in their classroom.
• investigate activities that occur within places, for example: (ACHGK007, ACHGK008)
  - examination of why various activities in an area are located where they are, e.g. school, shops

neighbourhood are located where they are.

**Acquiring geographical information**

**Question:**
- What are the natural and human features of our neighbourhood?
- What activities occur within places in our neighbourhood?
- What are the effects of the school and local facilities being located where they are in the neighbourhood?

**Acquire data and information:**
- View a [satellite image](#) and [virtual map](#) of the local neighbourhood and locate the school. Use Google street view imagery to observe the natural and human features of the local area.
- Use students’ knowledge to identify the uses of familiar places in the local neighbourhood.
- Use [virtual maps](#) to track the routes that are used by students to travel to school.
- Examine the location of the school and other facilities in the local neighbourhood.

**Processing geographical information**
- Interpret interconnections and discuss why the school and other facilities are located where they are, e.g. accessibility by foot and car, public transport. Discuss issues in accessing the school, e.g. busy roads to cross, lack of parking.
- Annotate a [satellite image](#) of the local neighbourhood indicating activities that occur in places.
- With guidance, students mark the route they take to travel to school and the other neighbourhood facilities on a virtual map.

**Communicating geographical information**

**Communicate and respond:**
Students work collaboratively to plan and draw a [large-scale map](#) of an ideal neighbourhood design that has the school and facilities located in ideal locations.

Students present their maps to the class and explain the reasons for their decisions.
Australian places
Students:
- investigate places across a range of scales within Australia, for example: (ACHGK010)
  - identification that places exist across a range of scales eg personal, local, national

Features of places
Students:
- investigate features of places and how they can be cared for, for example: (ACHGK005)
  - description of the natural and human features of places
  - consideration of how a place can be cared for eg a park, farm, beach, bushland

How places are organised
Students:
- investigate activities that occur within places, for example: (ACHGK007, ACHGK008)
  - discussion of why and how the spaces within places can be rearranged for different purposes eg street fair, school hall
  - examination of why various activities in an area are located where they are eg school, shops

Inquiry 5 – Case study of a local park
Students undertake a case study of a familiar local park or recreation area.
They examine the geographical issue of an imagined proposal for an extraordinary use of the park e.g. a dirt bike competition.

Acquiring geographical information
Question:
Sample question: Is it practical to hold of a dirt bike competition in our neighbourhood park?
- Where is the park located?
- What are its features?
- How is it used regularly and less regularly?
- Who uses it and how often is it used?
- How is the park cared for? Who looks after it?
- Why do you think it is important to take care of this place?

Acquire data and information:
Locate the park:
- Use Google maps to locate the park. Locate it in relation to the school.
- Identify the inquiry as a study at a local scale.
- Reference images of the park through photographs and Google Street View imagery.

Fieldwork:
- Visit the park or recreation area being studied.
- Observe and record its features through photographs and a simple field sketch.
- List the different activities that occur at the place by referencing the students’ knowledge, signage and infrastructure, e.g. goal posts, play equipment, barbecues. Record through photographs.
- Organise the students to use the area, e.g. play soccer, eat lunch at the picnic tables, use the play equipment. Record through photographs and video.
- Observe and photograph ways the place is cared for, e.g. litter bins, signage, maintenance workers. Model caring for the area during the site visit.
- Observe, then discuss what would need to be rearranged for the proposed dirt bike competition. Predict the potential impacts of it, e.g. soil brought in, grass churned up, dust everywhere.

Survey park users:
- Develop survey questions for students to ask their family to establish patterns and extent of use of the place.
- Suggested survey questions: How often do you use the place? How is the place used differently according to time of year / seasons? How is the place rearranged for different activities? What special events are held at the place? What do you like about the place? What don’t you like about it? How can people care for the place?
- Collate data using a tally chart to record whole class responses from the family survey.

Secondary sources:
- Reference the local council web site to collect additional information about the park.
Processing geographical information
- Construct a **pictograph** or **column graph** to represent the main uses of the area. Interpret the data.
- Examine and discuss the causes and effects of the different uses of the area, e.g. cricket pitch reinstated for summer cricket; stage, lighting and portable toilets for Christmas carols. Represent through **drawings** in a **cause and effect table**. Predict the effects of the proposed dirt bike competition.
- Construct a **'Y' chart** to analyse and record responses to the questions regarding caring for place.
- Summarise uses of the site by annotating **photographs** or constructing a **table** of features and their uses.
- Construct a **PMI chart** on the proposed dirt bike competition at the park. Students use the information to form a view on the proposal and state their conclusion.

Communicating geographical information
**Communicate:**
Students write a **letter** to the organisers of the proposed dirt bike competition explaining whether they can or can’t use the park for that use. Students provide reasons for their decision and explain why and how the park needs to be looked after.

**Respond:**
Working collaboratively, students create an annotated **photographic collage** of the area to promote ways users can care for it. These could be displayed on school and neighbourhood noticeboards.
<table>
<thead>
<tr>
<th>Place: the significance of places and what they are like eg location and features of local places and other places in the world</th>
<th>Geographical inquiry skills</th>
<th>Geographical tools</th>
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<td>• pose geographical questions (ACHGS007, ACHGS013)</td>
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<td>• observing, collecting and recording data, conducting surveys</td>
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</tr>
<tr>
<td><strong>Processing geographical information</strong></td>
<td><strong>Spatial technologies</strong> – ST</td>
<td>• virtual maps, satellite images</td>
</tr>
<tr>
<td>• represent data by constructing tables, graphs or maps (ACHGS009, ACHGS015)</td>
<td><strong>Visual representations</strong> – VR</td>
<td>• photographs, illustrations, diagrams, story books, multimedia, web tools</td>
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<td>• draw conclusions based on the interpretation of geographical information sorted into categories (ACHGS010, ACHGS016)</td>
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</tbody>
</table>

**Environment:** the significance of the environment in human life, and the important interrelationships between humans and the environment eg natural and human features of a place; daily and seasonal weather patterns of places.

**Space:** the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in eg where activities are located and how spaces can be organised.

**Interconnection:** no object of geographical study can be viewed in isolation eg local and global links people have with places and the special connection Aboriginal and Torres Strait Islander Peoples maintain with Country/Place.

**Scale:** the way that geographical phenomena and problems can be examined at different spatial levels eg various scales by which places can be defined such as local suburbs, towns and large cities.
# STAGE 1 GEOGRAPHY: Weather

## Focus area: Features of places

| Weather and seasons |

### Key inquiry questions
- What are the features of, and activities in, places?

### Content focus

**Students:**
- investigate the natural and human features of places
- learn about how people describe the weather and seasons of places

### Outcomes

**A student:**
- describes features of places and the connections people have with places GE1-1
- identifies ways in which people interact with and care for places GE1-2
- communicates geographical information and uses geographical tools for inquiry GE1-3

## Overview

The geographical inquiry process will describe the daily weather and seasons in the local area and their influence on people and their activities. Through investigation of a geographical issue, students will examine the weather and seasons of Kakadu as described by the Aboriginal people of the Larrakia/Gulumoerrgin language group and the meaning of the seasons for the people and the place.

This learning is shaped by two small inquiries, which vary in length.

Note: Refer to the geography syllabus glossary to ensure that the terms 'weather' and 'climate' are used in context.

## Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
Weather and seasons

Students:

- investigate the weather and seasons of places, for example: (ACHGK006)
  - description of the daily and seasonal weather patterns of a familiar place
  - comparison of the daily and seasonal weather patterns of places
  - examination of how different cultural groups, including Aboriginal or Torres Strait Islander Peoples, describe weather, seasons or seasonal calendars
  - discussion of how weather can affect places and activities eg leisure, farming

Inquiry 1 – What is weather? What are seasons?

Students investigate the weather and seasons in their local area.

Acquiring geographical information

Question:

- Is the weather the same every day?
- Why do we need to predict the weather? (e.g. plan for activities, what to wear)
- What do we know about the seasons where we live?

Acquire data and information:

- Define ‘weather’ vocabulary: weather, climate, seasons.
- Look up the weather forecast on weather apps and websites. Discuss the components of a weather forecast, the meanings of weather symbols, units of measurement and weather recording equipment. Discuss how and why people use weather forecasts.
- Look up the weather forecast each day for the following day. Discuss the impacts of the forecast on the students, e.g. bring a raincoat, bring a cold drink, pack a jumper, plan to play quietly in the shade.
- Fieldwork - record daily weather information over at least a week, including temperature, rainfall, sunshine, cloud cover and wind. Use a thermometer and observations at the same location and time daily and record onto a weather chart.
- Fieldwork - How can you predict what the weather is going to do without a formal forecast? Encourage students to use their senses and observations to pick up signs in weather changes:
  - Are animals and insects behaving differently? Watch the wildlife e.g. ants, pets, wild birds take shelter, cows cluster.
  - Do you personally feel different or notice a change? e.g. frizzy hair.
  - What does the moon look like? e.g. clear and bright, or hazy.
  - What can you smell? e.g. the ‘smell’ of rain, smell of compost prior to a storm.
  - What is smoke doing e.g. rising steadily upwards, swirling around or dropping to the ground?
- Reference photographs and videos of a variety of weather conditions students may have experienced. Describe the weather shown and relate images to place and time of year.
- Tell a story or use a picture book such as A Year on Our Farm by Penny Mathews or All Through the Year by Jane Godwin to introduce the concept of seasons and changes through the year. Note: The four seasons in the temperate zone of Australia often don’t have obvious distinctions to students who will often spend spring, autumn and many winter days in short sleeves.
- Draw on personal experience to recall what the seasons are like in the local area. Consider school uniform in summer and winter, use of heaters and air conditioners, local sports played
and changes to trees and plants.

− Collect photographs of the students taken at different times of year, showing clothing and activities relating to the seasons.

**Processing geographical information**

− Analyse the weather data collected on the weather chart. Identify the similarities and differences across the week. Interpret the data, e.g. What was the hottest day? Windiest day? Etc.

− Construct a table of weather symbols. Students draw themselves in clothing suitable for each type of weather.

− Categorise and label photographs of different weather conditions, e.g. windy, raining, sunny.

− Use secret envelopes or a post box to collect students’ predictions of changes in the weather prior to changes occurring. Share and compare successful predictions.

− Categorise photographs of students’ clothing and activities into seasonal categories. Discuss:
  
  o adjustments to living conditions
  o effects on people (clothing, school uniform)
  o effects on the environment (bushfire, drought)
  o effects on leisure activities (football/netball in winter, cricket/swimming in summer)
  o different fruits and vegetables that are available at certain times of the year.

**Communicating geographical information**

**Communicate:**

Construct a seasons wheel that names and illustrates the seasons in the local area. Students describe the differences between the seasons as a verbal explanation.

**Respond:**

Students pack clothing in their school bag appropriate to weather predictions and describe appropriate activities for the predicted weather.
# Weather and seasons

**Students:**
- investigate the weather and seasons of places, for example: *(ACHGK006)*
  - examination of how different cultural groups, including Aboriginal or Torres Strait Islander Peoples, describe weather, seasons or seasonal calendars
  - discussion of how weather can affect places and activities eg leisure, farming

# Features of places

**Students:**
- investigate features of places and how they can be cared for, for example: *(ACHGK005)*
  - description of the natural and human features of places
  - discussion of the natural features of places identified in Aboriginal Dreaming stories and/or Legends of the Torres Strait

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**Inquiry 2 – A trip to Kakadu National Park**

Students imagine they are planning a trip to Kakadu in the Northern Territory. They investigate the seasons of the Top End and recommend the best season for visiting.

### Acquiring geographical information

**Question:**
- What is the best season to visit Kakadu National Park?
  - Where is Kakadu National Park?
  - What are the main features of Kakadu National Park?
  - What are the seasons of Kakadu?
  - What do we know about the cultural knowledge Aboriginal people have about the weather and seasons in Kakadu?

**Acquire data and information:**
- Use a picture book such as *Walking with the Seasons in Kakadu* by Diane Lucas and Ken Searle to introduce the investigation. Recall how Aboriginal people describe the weather and seasons in the text. Note the number of seasons and the way they are measured.
- Locate Kakadu National Park and Darwin on a map of Australia.
- Define the seasons in Darwin in northern Australia.
- Display and discuss the *Larrakia/Gulumoerrgin Seasons Calendar* of the Darwin area.
- Explore the interactive *Larrakia/Gulumoerrgin Seasons Calendar* and listen to the audio to gather information on each season.
- Observe photographs and videos of Kakadu National Park in each season.

### Processing geographical information

- Plot and illustrate the Gulumoerrgin (Larrakia) Aboriginal seasons onto a seasons wheel.
- Analyse the similarities and differences between the local area seasons wheel (from Inquiry1), the Aboriginal Larrakia/Gulumoerrgin seasonal calendar and the two season monsoonal calendar.
- Construct a flowchart or concept map for one season of the Aboriginal Larrakia/Gulumoerrgin seasonal calendar showing nature’s signs and what they mean, e.g. Big Wind Season > Yellow Kapok flowers > time for celebrations of life.
- Use a T-chart to describe the Wet and the Dry seasons in northern Australia using illustrations, symbols photographs and descriptions of the weather in each season.
- Categorise the photographs of Kakadu National Park into the Wet and Dry seasons. Analyse the images and make inferences about the best season in which to visit.
- Complete a Venn diagram listing the similarities and differences in the weather and seasons of Kakadu and your local area.
<table>
<thead>
<tr>
<th>Communicating geographical information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate:</td>
<td></td>
</tr>
<tr>
<td>Students create a brief <strong>narrated slideshow</strong> of Kakadu National Park showing photographs of Kakadu in the best season to visit. They explain the reasons to visit in that season. (This can be a simple slide show using an app such as SonicPics or PicPlayPost.)</td>
<td></td>
</tr>
<tr>
<td>Respond:</td>
<td></td>
</tr>
<tr>
<td>Create an <strong>illustrated seasonal calendar</strong> for the local area illustrated with nature’s signs.</td>
<td></td>
</tr>
<tr>
<td>Geographical concepts</td>
<td>Geographical inquiry skills</td>
</tr>
<tr>
<td>-----------------------</td>
<td>----------------------------</td>
</tr>
</tbody>
</table>
| **Place:** the significance of places and what they are like eg location and features of local places and other places in the world | **Acquiring geographical information**  
- pose geographical questions (ACHGS007, ACHGS013)  
- collect and record geographical data and information, for example, by observing, by interviewing, or using visual representations (ACHGS008, ACHGS014) | **Maps** – M  
- pictorial maps, large-scale maps, world map, globe |
| **Space:** the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in eg where activities are located and how spaces can be organised. | **Processing geographical information**  
- represent data by constructing tables, graphs or maps (ACHGS009, ACHGS015)  
- draw conclusions based on the interpretation of geographical information sorted into categories (ACHGS010, ACHGS016) | **Fieldwork** – F  
- observing, collecting and recording data, conducting surveys |
| **Environment:** the significance of the environment in human life, and the important interrelationships between humans and the environment eg natural and human features of a place; daily and seasonal weather patterns of places. | **Communicating geographical information**  
- present findings in a range of communication forms (ACHGS011, ACHGS017)  
- reflect on their learning and suggest responses to their findings (ACHGS012, ACHGS018) | **Graphs and statistics** – GS  
- tally charts, pictographs, data tables, column graphs, weather data |
| **Interconnection:** no object of geographical study can be viewed in isolation eg local and global links people have with places and the special connection Aboriginal and Torres Strait Islander Peoples maintain with Country/Place. | | **Spatial technologies** – ST  
- virtual maps, satellite images |
| **Scale:** the way that geographical phenomena and problems can be examined at different spatial levels eg various scales by which places can be defined such as local suburbs, towns and large cities. | | **Visual representations** – VR  
- photographs, illustrations, diagrams, story books, multimedia, web tools |
**STAGE 2 GEOGRAPHY: Features of Australia**

**Focus area: Places are Similar and Different**

<table>
<thead>
<tr>
<th>The Australian continent</th>
<th>Climate of places</th>
<th>Similarities and differences between places</th>
<th>Perception and protection of places</th>
</tr>
</thead>
</table>

**Key inquiry questions**

- How and why are places similar and different?
- How can people use places and environments more sustainably?
- How do people’s perceptions about places influence their views about the protection of places?

**Content focus**

Students:

- explore the different climates, settlement patterns and demographic characteristics of places
- explore the climate, natural vegetation and native animals of places in Australia
- use this information to imagine what it would be like to live in different places
- consider how people’s perceptions of places are the basis for actions to protect places and environments.

**Outcomes**

A student:

- examines features and characteristics of places and environments **GE2-1**
- describes the ways people, places and environments interact **GE2-2**
- examines differing perceptions about the management of places and environments **GE2-3**
- acquires and communicates geographical information using geographical tools for inquiry **GE2-4**

**Overview**

The geographical inquiry process will investigate the geographical characteristics of Australia. Students will compare the climate, settlement patterns and lives of the people of three Australian places, including their own ‘home town’. Through investigation of a geographical issue, students will examine the interconnections between people’s perceptions and the protection of a significant cultural site.

This learning is shaped by two inquiries, which vary in length.

**Note:** Teachers may need to adjust and scaffold learning activities as appropriate. Teachers can choose whether the inquiry is undertaken by individuals, pairs or groups, or as a whole class.

**Assessment**

Many of the activities require students to demonstrate their learning. These activities can be used to assess student learning at various stages throughout the inquiry process.
The Australian continent

Students:

- investigate Australia’s major natural and human features for example: (ACHGK014, ACHGK015)
  - description of natural features of Australia eg deserts, rivers, mountains
  - location of Australia’s states, territories and major cities
  - identification of Countries/Places of Aboriginal and Torres Strait Islander Peoples

Similarities and differences between places

Students:

- investigate the settlement patterns and demographic characteristics of places and the lives of the people who live there, for example: (ACHGK019)
  - examination of the varying settlement patterns and demographics of places
  - comparison of the daily life of people from different places

Inquiry 1 - Student-centred cultural study of three Australian places

Students compile and publish a mini-atlas that showcases geographical characteristics of Australia and provides profiles of three populated Australian places. This could be hand-compiled, digital or multimodal.

Note: The geographical inquiry process will need to be modelled and guided by the teacher.

Acquiring geographical information

Question:

- What is Australia’s location in the world and region?
- Where are Australia’s states, territories and major cities located?
- How are Aboriginal and Torres Strait Islander People’s Countries and Places identified?
- What are some of the unique natural features of Australia? (E.g. significant landforms, flora and fauna, World Heritage places.)
- What are the similarities and differences in the geographical characteristics of my town/city and two other Australian places? (Including landscapes, climate, demographics, daily lives.)
- What can Australians do to protect our unique environments and features?

Acquire data and information:

Identify the geographical tools required to support student learning, for example:

- Locate Australia on a globe and world map. Identify the state and territory boundaries and major cities.
- Locate major heritage and cultural sites on a map of Australia, e.g. Uluru, Great Barrier Reef, Arnhem Land.
- Reference large-scale maps and Google satellite images that show the landscapes and landforms of Australia, e.g. deserts, rivers, lakes, mountain ranges.
- Reference maps and information that identify Aboriginal language groups.
- Students investigate three populated places in Australia: their own city/town/place and two other places. It is suggested that places be chosen that show the diversity of Australia, e.g. an Australian capital city, a regional centre and a sparsely populated place.
  - Use BOM’s Climate Data Online to obtain the annual average temperature and rainfall data for each place.
  - Research and record the demographic and population data and settlement patterns for each place.
  - Examine daily life and culture, such as schooling, making a living, recreation, and special events. Use photographs, illustrations, diagrams, story books, and multimedia including apps.
  - Use tourism websites to identify and describe cultural and heritage sites in the places.
  - Interview friends and family who have lived in or visited the places to obtain information on daily life.
  - Fieldwork – visit and record the features of the students’ home town or city.
  - Identify examples of environmental sustainability.
practices in each place.

**Processing geographical information**

Students use geographical tools to represent, organise and analyse the data and information, for example:

- Locate Australia on a world map. Label Australia and other major countries or continents.
- On an outline map of Australia plot and label the states and territories, major cities, major landforms and major cultural and heritage sites.
- Consult with local Aboriginal and Torres Strait Islander Peoples to explain representations of the identification of Countries and Places.
- Annotate photographs to describe the indigenous plants and animals. Organise and compile images into a narrated slideshow.
- Match images of major landforms and heritage sites to places on a map or satellite image of Australia. Describe these features.
- For each of the three Australian places being investigated:
  - Locate the places on a map of Australia.
  - Annotate photograph collages or narrated slideshows using photographs and video clips of features and heritage sites of the place. Use information from interviews and research to inform the annotations.
  - Construct climate graphs that show rainfall (precipitation) as a column graph and temperature overlaid as a line graph. Interpret the data.
  - Construct a comparison table, a column per place, comparing climate data, population statistics, demographic data, settlement patterns and daily life.
  - Infer the impacts of climate, physical features and the environment on lifestyles. Construct cause and effect charts to illustrate examples.
  - Interpret the comparison table to draw conclusions about similarities and differences in getting around, clothing worn, transport and the personal sense of belonging.

**Communicating geographical information**

Communicate:

Support students to develop a mini-atlas that is either digital, multimodal or hand-compiled.

The mini-atlas should include:

- Australia’s position on a world map.
- Maps that locate and describe features of Australia, constructed according to cartographic conventions (BOLTS).
- Annotated photographs, videos or slideshows to describe significant landforms, indigenous vegetation and animals, and major cultural sites in Australia.
- A profile page of each of the three Australian places investigated which compiles and explains the processed data and information.
- Explanations of similarities and differences between features.
data and daily life, including an explanation about the way the environment affects lifestyle.

Create a class **virtual tour**, using Google Tour Builder, of the places investigated by the students. Students provide a summary for each place from their profile pages.

As a class, undertake the virtual tour, each student acting as ‘tour guide’ for the places they investigated.

**Respond:**

Describe one sustainability action that enhances quality of life for people and the environment in one of the Australian places investigated.

Select sustainability practices to implement at school and at home.
**Perception and protection of places**

Students:

- investigate how the protection of places is influenced by people’s perception of places, for example: (ACHGK018)
  - description of how and why people perceive places differently
  - discussion of how people’s perceptions influence the protection of places in Australia eg sacred sites, national parks, world heritage sites

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**Inquiry 2 – Perception and protection of a heritage site**

**Case study: Uluru**

Students investigate how the protection of the Uluru (or alternative Australian cultural or heritage) is influenced by peoples’ perceptions of it.

**Acquiring geographical information**

**Question:**

How can Uluru be protected from the impacts of tourism visitation?

- What is Uluru and where is it located?
- Why is Uluru on the World Heritage List?
- Who visits Uluru and why do they visit?
- What are different people’s perceptions of Uluru?
- How are the impacts of tourism to Uluru managed?
- How do peoples’ perceptions influence the protection of Uluru?

**Acquire data and information:**

- Recall cultural sites included in the students’ profiles of Australian places presentations. Identify those listed on the World Heritage List and explain the purpose of the list.
- Recall the location of Uluru and undertake a virtual tour using Google Street View imagery.
- Reference the World Heritage List to view photographs, read descriptions of the site and the significant factors that led to its World Heritage listing.
- Access information about the site, its past and present significance, different peoples’ perceptions of it and ways it is cared for and protected.

**Processing geographical information**

- Represent the information collected in a table or concept map.
- Construct flow charts to explain the interconnections between significance, perceptions, visitation, impacts and strategies that help protect it.

**Communicating geographical information**

Communicate:

Students create a persuasive text suggesting appropriate tourist behaviours when visiting Uluru. This should clearly explain interconnections between perceptions and protection of the site.

Respond:

Students create a text from the point of view of a person who advocates for the site’s protection. This could be an artwork, poem or narrative.

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<table>
<thead>
<tr>
<th>Geographical concepts</th>
<th>Geographical inquiry skills</th>
<th>Geographical tools</th>
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</thead>
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Learning and Teaching Directorate
<table>
<thead>
<tr>
<th>Place: the significance of places and what they are like eg natural and human features and characteristics of different places and their similarities and differences; how people’s perceptions about places influence their responses and actions to protect them.</th>
<th>Acquiring geographical information</th>
</tr>
</thead>
</table>
| Space: the significance of location and spatial distribution, and ways people organise and manage spaces that we live in eg settlement patterns within Australia, neighbouring countries and other countries. | - develop geographical questions to investigate (ACHGS019, ACHGS026)  
- collect and record relevant geographical data and information, for example, by observing, by interviewing, conducting surveys, or using maps, visual representations, the media or the internet (ACHGS020, ACHGS027) |
| Environment: the significance of the environment in human life, and the important interrelationships between humans and the environment eg how climate and environment influence settlement patterns; interconnections between people and environments; differing ways people can use environments sustainably. | Processing geographical information |
| Interconnection: no object of geographical study can be viewed in isolation eg interconnections between people, places and environments; influence of people’s values on the management and protection of places and environments and the custodial responsibilities of Aboriginal and Torres Strait Islander Peoples. | - represent data by constructing tables, graphs and maps (ACHGS021, ACHGS028)  
- represent information by constructing large-scale maps that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS022, ACHGS029)  
- interpret geographical data to identify distributions and patterns and draw conclusions (ACHGS023, ACHGS030) |
| Scale: the way that geographical phenomena and problems can be examined at different spatial levels eg types of settlement across a range of scales; the influence of climate across a range of scales. | Communicating geographical information |
| Sustainability: the capacity of the environment to continue to support our lives and the lives of other living creatures into the future eg ways in which people, including Aboriginal and Torres Strait Islander Peoples, use and protect natural resources; differing views about environmental sustainability; sustainable management of waste. | - present findings in a range of communication forms, for example, written, oral, digital, graphic, tabular and visual, and use geographical terminology (ACHGS024, ACHGS031)  
- reflect on their learning to propose individual action in response to a contemporary geographical challenge and identify the expected effects of the proposal (ACHGS025, ACHGS032) |
| Maps – M | - large-scale maps, world map, globe, sketch maps  
- maps to identify location, direction, distance, map references, spatial distributions and patterns |
| Fieldwork – F | - observing, measuring, collecting and recording data, conducting surveys or interviews  
- fieldwork instruments such as measuring devices, maps, photographs |
| Graphs and statistics – GS | - tally charts, pictographs, data tables, column graphs, simple statistics |
| Spatial technologies – ST | - virtual maps, satellite images, global positioning systems (GPS) |
| Visual representations – VR | - photographs, illustrations, diagrams, story books, multimedia, web tools |
# STAGE 2 GEOGRAPHY: Australia’s neighbours

## Focus area: Places are similar and different

<table>
<thead>
<tr>
<th>Australia’s neighbours</th>
<th>Climate of places</th>
<th>Similarities and differences between places</th>
<th>Perception and protection of places</th>
</tr>
</thead>
</table>

### Key inquiry questions
- How and why are places similar and different?
- What would it be like to live in a neighbouring country?
- How do people’s perceptions about places influence their views about the protection of places?

### Content focus

**Students:**
- examine the diverse characteristics of Australia’s neighbouring countries
- explore the different climates, settlement patterns and demographic characteristics of places
- explore the climate, natural vegetation and native animals of places in Asia
- use this information to imagine what it would be like to live in different places
- consider how people’s perceptions of places are the basis for actions to protect places and environments.

### Outcomes

**A student:**
- examines features and characteristics of places and environments **GE2-1**
- describes the ways people, places and environments interact **GE2-2**
- examines differing perceptions about the management of places and environments **GE2-3**
- acquires and communicates geographical information using geographical tools for inquiry **GE2-4**

### Overview

The geographical inquiry process will investigate the location and geographical characteristics of Australia’s neighbouring countries. This includes the investigation of the natural characteristics of a country in Asia in the content area: *Different environments* in the focus area: *The Earth’s environment.*

Through investigation of a geographical issue, students will examine the interconnections between people’s perceptions and the protection of a significant cultural site.

The learning is shaped by three inquiries, which vary in length.

Note: The capacity of students to engage with Inquiry 2 will be much greater at the end of Year 4 than the start of Year 3. Teachers will need to adjust and scaffold learning activities as appropriate. Teachers can choose whether the cultural study is undertaken by the whole class, or as individuals, pairs or groups.

### Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
<table>
<thead>
<tr>
<th>Australia's neighbours</th>
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</thead>
<tbody>
<tr>
<td>Students:</td>
</tr>
<tr>
<td>• investigate Australia’s neighbouring countries and their diverse characteristics, for example: (ACHGK016)</td>
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<tr>
<td></td>
</tr>
<tr>
<td>○ location of Australia’s neighbouring countries</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Inquiry 1 – Australia’s neighbours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students identify and locate Australia’s neighbouring countries.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Acquiring geographical information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question:</td>
</tr>
<tr>
<td>• Who are Australia’s neighbours?</td>
</tr>
<tr>
<td>• What are the locations of Australia’s neighbouring countries?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acquire data and information:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Refer to a virtual or printed map of the Asia Pacific region, e.g. an atlas, Google maps.</td>
</tr>
<tr>
<td>• As a class, name as many neighbouring countries as possible, such as: China, Philippines, Papua New Guinea, India, Japan, Singapore, Bangladesh, Cambodia, Vietnam, Indonesia, New Zealand, Timor Leste, Thailand and New Caledonia.</td>
</tr>
<tr>
<td>• Students use an atlas to examine the map of the region and locate the list of neighbouring countries.</td>
</tr>
<tr>
<td>• Discuss knowledge and experiences of neighbouring countries. Examine news events, travel experiences and personal connections with countries in the Asia Pacific.</td>
</tr>
<tr>
<td>• Students reference travel website such as Lonely Planet to gain an overview of countries in the region.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Processing geographical information</th>
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</thead>
<tbody>
<tr>
<td>• Students label Australia’s neighbours on an outline map of the Asia-Pacific region. They may colour code each country using the legend.</td>
</tr>
<tr>
<td>• Students use cartographic conventions by adding a border, north point, legend and title to their map.</td>
</tr>
<tr>
<td>• Imagine the class has been asked to participate in a market research project to identify ten places in close proximity to Australia for including in new travel itineraries. Students create a preliminary ‘Top Ten Picks’ of places they would like to investigate as the potential ‘top ten’. Rank these according to class opinion.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communicating geographical information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communicate:</td>
</tr>
<tr>
<td>Students use the language of direction, e.g. north, north-west, to make statements describing the location of Australia’s neighbours in relation to Australia.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Respond:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students decide on one or more neighbouring countries to examine in detail for Inquiry 2.</td>
</tr>
</tbody>
</table>
Australia’s neighbours
Students:
• investigate Australia’s neighbouring countries and their diverse characteristics, for example: (ACHGK016)
  - examination of the natural and human features of neighbouring countries GS VR
  - comparison of the natural and human features of a city in Australia with a city in a neighbouring country GS

Climate of places
Students:
• investigate the climates of different places, for example: (ACHGK017)
  - comparison of climates in different places M

Similarities and differences between places
Students:
• investigate the settlement patterns and demographic characteristics of places and the lives of the people who live there, for example: (ACHGK019)
  - examination of the varying settlement patterns and demographics of places MGS
  - comparison of the daily life of people from different places VR

Different environments
Students:
• investigate the natural characteristics of Australia and a country in Asia, for

Inquiry 2 - Cultural study of a neighbouring country
Students select a neighbouring country to study in detail. They will use the information gathered to complete a travel brochure on the country and provide recommendations for including the country as one of the Top Ten travel destinations.

Note: The geographical inquiry process will need to be modelled and guided by the teacher. This may be through a class study of one neighbouring country. Students groups may also undertake independent research into another neighbouring country for sharing with the class to recommend the ‘Top Ten’ travel destinations.

Acquiring geographical information

Question:
Pose geographical questions to be contextualised to the focus country.
- What are the main physical characteristics of the country (e.g. landforms, bodies of water, rivers) and where are they located?
- What is the climate of the country, its indigenous vegetation and animal life?
- What are the main human features (e.g. cities, cultural sites) of the country and where are they located?
- What are the settlement patterns and demographics of the country?
- How do people interact with the place? What are the language, religions, cultural and economic activities?
- What is the daily life of the people who live in different places in the country?

Acquire data and information:
Support students to access a wide range of information sources, for example:
- Reference large-scale maps, such as relief maps, political maps and satellite images, which show the landform and other physical features of the country.
- Source appropriate climate, population statistics and demographic data such as food production, occupations and religions.
- Examine daily life and culture, such as schooling, making a living, recreation, and special events. Use photographs, illustrations, diagrams, picture books and multimedia including apps.
- Identify and locate cultural and heritage sites and research their significance.
- Interview friends and family who have lived in or visited the country. Ask questions about their experiences and advice regarding travel within the country.
- Research and list well-known indigenous animals and plants of the country.
example: (ACHGK020)
- comparison of climate, natural vegetation and native animals

Processing geographical information
Students use geographical tools to represent, organise and analyse the data and information, for example:
- Use cartographic conventions to construct a map of the country. Plot and label the main physical characteristics and major cities.
- Annotate photographs to describe the indigenous plants and animals. Organise and compile images and video clips. Add media to specific places on maps.
- Create an illustrated table of the major cultural and heritage sites, explaining the significance of each site.
- Construct climate graphs that show rainfall (precipitation) as a column graph and temperature overlaid as a line graph. Interpret the data. Compare this to climate data at home in Australia.
- Use a pictographs, tables, diagrams and/or column graphs to present data on demographics and settlement patterns.
- Use annotated photographs, diary style entries or descriptions to present information on culture and daily life.
- Compare daily life of the people in rural and urban areas. Discuss what daily life is like in this country compared to student’s own daily life. Represent similarities and differences using a Venn diagram.
- Use a consequences chart to examine how the climate and weather affects the daily life in the country, including getting around, clothing worn, effect on transport. Compare to the impact of weather and climate of own location.
- Use a comparison table to compare cultural events that are features of life in the country to similar local customs and events in Australia.
- Generate a table of travel destinations within the country and their main attractions.

Ensure students have developed their understanding of the characteristics of the place:
- Does the information relate to the inquiry questions used to shape the investigation?
- Can generalisations be formed?
- Does the information describe the physical characteristics of the place?
- Are the human characteristics of the place described?
- Has the lifestyle of the people been described, including similarities and differences to own?

Communicating geographical information
Communicate:
Support students to develop a detailed and appealing travel brochure (print, digital or multi-modal) which should include:
- a description of the place with maps and images
- description of the physical, human and cultural features, with
- annotated images
- climate and weather data, recommendations of best time of year to visit and advice for travellers
- description of daily life, with images and comparisons to own lifestyle in aspects such as schooling, work, recreation, housing, food, celebrations, events
- explanations which relate to travel tips, social responsibilities and ethical considerations when interacting with the local people and places
- descriptions of places suitable for tourist visits.
- recommendations for inclusion in the ‘Top Ten’ travel destinations.

Display or present students’ travel brochures. As a class, decide on the ‘Top Ten Picks’ of places for new travel itineraries. Compare to the preliminary list generated in Inquiry 1.

A class Google tour of the ‘Top Ten’ could be constructed and annotated in Google Earth.

**Respond:**

Develop a discussion that supports intercultural understanding. Refer to the Intercultural Communicator poster.

Cross reference typical social situations where simple cultural understandings can affect the way people are perceived, e.g. manners, greetings, sharing food, gift protocol, to the actions described on the poster.

- How has learning about another country changed the way you think about your own life and how people live in another country?

**Resources**

Travel websites, e.g. [Lonely Planet](https://www.lonelyplanet.com/)

Virtual mapping tools, e.g. [MapMaker Interactive](https://www.mapmaker.com/)

Demographic statistics, e.g. [World Health Organisation](https://www.who.int/en/)

Country profiles and facts, e.g. [The World Factbook](https://www.cia.gov/library/publications/the-world-factbook/)
Perception and protection of places

Students:
- investigate how the protection of places is influenced by people's perception of places, for example: (ACHGK018)
  - description of how and why people perceive places differently
  - discussion of how people's perceptions influence the protection of places in Australia eg sacred sites, national parks, world heritage sites

Inquiry 3 – Perception and protection of a cultural site
Case study: Taj Mahal, India

Students investigate how the protection of the Taj Mahal (or alternative site in a neighbouring country) is influenced by peoples' perceptions of it.

Acquiring geographical information

Question:
How can the Taj Mahal be protected from the impacts of increasing tourism visitation?
- What is the Taj Mahal and where is it located?
- Why is the Taj Mahal on the World Heritage List?
- Who visits the Taj Mahal and why do they visit it?
- What are people's perceptions of the Taj Mahal?
- How are the impacts of three million visitors a year managed?
- How do peoples’ perceptions influence the protection of the Taj Mahal?

Acquire data and information:
- Recall cultural sites included in the students’ cultural study presentations. Identify those listed on the World Heritage List and explain the purpose of the list.
- Locate the Taj Mahal on Google maps and undertake a virtual tour of the building and surrounds using Street View imagery.
- Reference the World Heritage List to view photographs, read descriptions of the site and the significant factors that led to its World Heritage listing.
- Access information about the site, its past and present significance, people’s perceptions of it and ways it is cared for and protected.

Processing geographical information

- Represent the information collected in a table or concept map.
- Construct flow charts to indicate the interconnections between significance, perceptions, visitation, impacts and strategies that help protection it.

Communicating geographical information

Communicate:
Students create a fact sheet on the Taj Mahal, explaining its significance and reasons for its popularity as a tourist destination. Students include strategies used to protect the site. They explain how people’s perceptions of the site influence its protection.

Respond:
Students write a persuasive text advocating the protection of the site.
<table>
<thead>
<tr>
<th>Geographical concepts</th>
<th>Geographical inquiry skills</th>
<th>Geographical tools</th>
</tr>
</thead>
</table>
| **Place:** the significance of places and what they are like eg natural and human features and characteristics of different places and their similarities and differences; how people’s perceptions about places influence their responses and actions to protect them. | Acquiring geographical information  
- develop geographical questions to investigate (ACHGS019, ACHGS026)  
- collect and record relevant geographical data and information, for example, by observing, by interviewing, conducting surveys, or using maps, visual representations, the media or the internet (ACHGS020, ACHGS027) | Maps – M  
- large-scale maps, world map, globe, sketch maps  
- maps to identify location, direction, distance, map references, spatial distributions and patterns |
| **Space:** the significance of location and spatial distribution, and ways people organise and manage spaces that we live in eg settlement patterns within Australia, neighbouring countries. | Processing geographical information  
- represent data by constructing tables, graphs and maps (ACHGS021, ACHGS028)  
- represent information by constructing large-scale maps that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS022, ACHGS029)  
- interpret geographical data to identify distributions and patterns and draw conclusions (ACHGS023, ACHGS030) | Fieldwork – F  
- observing, measuring, collecting and recording data, conducting surveys or interviews  
- fieldwork instruments such as measuring devices, maps, photographs |
| **Environment:** the significance of the environment in human life, and the important interrelationships between humans and the environment eg how climate and environment influence settlement patterns; interconnections between people and environments; differing ways people can use environments sustainably. | Communicating geographical information  
- present findings in a range of communication forms, for example, written, oral, digital, graphic, tabular and visual, and use geographical terminology (ACHGS024, ACHGS031)  
- reflect on their learning to propose individual action in response to a contemporary geographical challenge and identify the expected effects | Graphs and statistics – GS  
- tally charts, pictographs, data tables, column graphs, simple statistics |
| **Interconnection:** no object of geographical study can be viewed in isolation eg interconnections between people, places and environments; influence of people’s values on the management and protection of places and environments and the custodial responsibilities of Aboriginal and Torres Strait Islander Peoples. | | Spatial technologies – ST  
- virtual maps, satellite images, global positioning systems (GPS) |
| **Scale:** the way that geographical phenomena and problems can be examined at different spatial levels eg types of settlement across a range of scales; the influence of climate across a range of scales. | | Visual representations – VR  
- photographs, illustrations, diagrams, story books, multimedia, web tools |
| **Sustainability:** the capacity of the environment to continue to support our lives and the lives of other living creatures into the future eg ways in which people, including Aboriginal and Torres Strait Islander Peoples, use and protect natural resources; differing views about environmental sustainability; waste. | |  |
| of the proposal (ACHGS025, ACHGS032) |  |
STAGE 2 GEOGRAPHY: National park case study

Focus area: The Earth’s Environment

<table>
<thead>
<tr>
<th>Perception of environments</th>
<th>Protection of environments</th>
</tr>
</thead>
</table>

Key inquiry questions

- How do different views about the environment influence approaches to sustainability?
- How can people use places and environments more sustainably?

Content focus

Students:

- examine the importance of natural vegetation and natural resources to the environment, animals and people
- learn about the ways people value environments, including Aboriginal and Torres Strait Islander Peoples
- identify sustainable practices and recognise that there are differing views on how sustainability can be achieved.

Outcomes

A student:

- examines features and characteristics of places and environments GE2-1
- describes the ways people, places and environments interact GE2-2
- examines differing perceptions about the management of places and environments GE2-3
- acquires and communicates geographical information using geographical tools for inquiry GE2-4

Overview

The geographical inquiry process will investigate Kosciuszko National Park as a case study. Students investigate how various people value environments and how this influences the implementation of sustainable practices that protect environments.

The learning is shaped by two inquiries of differing length.

Teachers may need to adjust and scaffold learning activities as appropriate. Teachers may choose to have a single class inquiry on one national park that models and scaffolds the inquiry process and at the same time students work in pairs investigating another national park of their choice as an independent research project.

Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
### Inquiry 1 – Perception of environments

**Case study: The Australian Alps National Parks – Kosciuszko National Park**

Students create a poster or digital page that defines and explains the various values and perceptions of Kosciuszko National Park. Inquiry 2 investigates tourism and protection strategies for Kosciuszko National Park in greater depth.

**Acquiring geographical information**

**Question:**
How do people value and perceive Kosciuszko National Park?

- Where is Kosciuszko National Park?
- What are the features and uses of the national park?
- How was the land used before it became a national park?
- Why was the national park created? What are its significant values?
- How do Aboriginal and Torres Strait Islander Peoples value Kosciuszko National Park?
- How do other people value Kosciuszko National Park?
- How can Kosciuszko National Park be protected?

**Acquire data and information:**

**Introduction**

- As an introduction to the Australian Alps landscape, view the [video clip](https://youtu.be/FsNpeDjhecY) Touring Australia: Australian Alps by Australian Geographic (2014). Recall how the area is valued by a range of people, e.g. Aboriginal people, skiers, bush walkers, hikers, mountain bikers, abseilers, cavers, ‘horsemen’, scientists.

**Features of Kosciuszko National Park**

- Use an atlas or Google maps to locate the Australian Alps national parks, including Kosciuszko National Park.

- Use the interactive Kosciuszko National Park map to estimate the width and length of the national park. Identify the location of north, south, east and west. Explore the tourist drives, noting distances and landscapes shown in the photograph galleries. [http://www.nationalparks.nsw.gov.au/visit-a-park/parks/Kosciuszko-National-Park/Map](http://www.nationalparks.nsw.gov.au/visit-a-park/parks/Kosciuszko-National-Park/Map)

- Select a downloadable map, e.g. Southern Kosciuszko mountain bike trails. Use the legend to identify and locate the different features and visitor facilities, e.g. walking tracks, 4WD tracks, private property, historic buildings, sealed roads, unsealed roads, ski-tube.

- Research the differences between national parks and wilderness areas in terms of their use, access by people and the need for conservation of the area.


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**Perception of environments**

**Students:**

- investigate the ways people, including Aboriginal and Torres Strait Islander Peoples, value environments, for example: (ACHGK022, ACHGK023, ACHGK024)
  - discussion of why people value environments differently eg cultural, agricultural, commercial and recreational values
  - description of how custodial responsibility for Country/Place influences Aboriginal and Torres Strait Islander Peoples’ views of the environment.

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**HSIE K-6: Geography**

March 2016

Learning and Teaching Directorate
Examples of features for group research (one per group):

- landforms and landscapes
- flora and fauna, including Bogong moths
- threatened species, e.g. corroboree frog, mountain pygmy possum
- towns and resorts in Kosciuszko National Park
- caves, including limestone caves, e.g. Yarrangobilly Caves
- glacier lakes (also known as cirque lakes) and other ‘wetlands’, e.g. Blue Lake Ramsar.

- View the climate statistics for Mount Kosciuszko.

  Select the plot icons on the far left to view line graphs of temperature and column graphs of precipitation.

- Undertake fieldwork to the national park if viable. Use fieldwork tools such as observations, photographs, field sketches, mapping and surveys to record the features of the national park, its uses and evidence of sustainable management practices.

**Values and perceptions**


- Read the web pages Aboriginal people of Monaro [https://www.cooma.nsw.gov.au/DocumentCenter/Home/View/376](https://www.cooma.nsw.gov.au/DocumentCenter/Home/View/376) and Indigenous people and the Snowy [http://www.powerhousemuseum.com/hsc/snowy/impact.htm](http://www.powerhousemuseum.com/hsc/snowy/impact.htm) to develop a snapshot of the Aboriginal groups who lived with the land in the Kosciuszko area. The high country was used as a meeting place for the different Aboriginal groups during the summer months. Aboriginal tribes that have been identified as accessing the area include: Wolgal (Wolgulu/Walgalu), Waradgery (Wiradjuri), Ngarigo, Ngunawal, Jaimathang (Yaimathang).

- Use the web page The Snowy of the 19th century [http://www.powerhousemuseum.com/hsc/snowy/impact.htm](http://www.powerhousemuseum.com/hsc/snowy/impact.htm) to gather at least three key points about how European settlement impacted upon the environment in the Snowy Mountains.

country/ Identify the key issue and the point of view of the author. Undertake research to collect information on alternative points of view on the issue. Identify persuasive strategies used in communicating opinions on the issue.

**Processing geographical information**

Students use geographical tools to represent, organise and analyse the data and information, for example:

**Features of Kosciuszko National Park**

− Locate Kosciuszko National Park on a map of Australia. Colour and label the alpine parks in the ACT, NSW and Australia.
− Create an illustrated table that summarises the unique natural features of the national park.
− Display large photographs of the natural features of the park.
− Compare and interpret climate graphs. Discuss the impact of climate on the environment and the impact of climate on people's interactions with the environment.
− Create a Venn diagram to explain the similarities and differences between a national park and wilderness area.

**Values and perceptions**

− Hold a class discussion exploring strategic questions to develop students’ understanding of places of significance to Aboriginal people (e.g. the Ginini area, Mt Gingera, waterholes, caves); reasons for visiting the high country (e.g. Bogong moth harvesting and feasting); social and spiritual aspects of life that were part of these gatherings (e.g. ceremonies, initiations, marriages); eurocentric points of view and the reasons for this (i.e. the dispersion of Aboriginal people, lack of accurate records).
− Create a class cause and effect chart to explain the impacts on the environment of early European settlement.
− Construct a table to collate and sort information that summarises past and present human interactions and perceptions of the national park, e.g Aboriginal people (spiritual connections, social gatherings for Bogong moth feasting); European settlers (summer cattle grazing); recreational visitors (skiing as recreation; scientists (biodiversity, protecting threatened species).
− Jointly construct a Plus Minus Interesting chart in response to the question: ‘What do you think should be done about wild horses in the national park?’ Use the question as the basis for an informal class discussion or debate.

**Communicating geographical information**

**Communicate:**

Students create a poster or digital page that shows at a glance the various perceptions of Kosciuszko National Park. It is recommended students use either a placemat proforma or pinwheel chart format if publishing on paper. Alternatively they could create an interactive digital page with pop-ups or linked pages, e.g. a PowerPoint slide.
with interactive features embedded.  
Explanations of the background to and reasons for each perception should be included either as supplementary information or in pop-ups or linked pages if a digital page.  

**Respond:**  
Create **word clouds** to represent personal perceptions of Kosciuszko National Park.  

**Resources**  
Department of the Environment, National Heritage Places - Australian Alps National Parks and Reserves  

NSW National Parks and Wildlife Service YouTube channel  
https://www.youtube.com/channel/UCW-D0XhMQEb1aiWEQPo3Xw
### Protection of environments

**Students:**

- investigate sustainable practices that protect environments, including those of Aboriginal and Torres Strait Islander Peoples, for example: (ACHGK023, ACHGK024, ACHGK025)
  - examination of how environments can be used sustainably eg sustainable agricultural, commercial, recreational practices
  - discussion of ways waste can be managed sustainably
  - examination of how the practices of Aboriginal and Torres Strait Islander Peoples support the sustainable use of environments eg use of resources

### Perception of environments

**Students:**

- investigate the ways people, including Aboriginal and Torres Strait Islander Peoples, value environments, for example: (ACHGK022, ACHGK023, ACHGK024)
  - discussion of why people value environments differently eg cultural, agricultural, commercial and recreational values
  - description of how custodial responsibility for Country/Place influences Aboriginal and Torres Strait Islander Peoples’ views of the environment

### Inquiry 2 – Tourism and national parks

**Case study: Kosciuszko National Park**

Students investigate a recreational activity undertaken in the Kosciuszko area. Students write either a newspaper report, letter to the editor or a media release on the effect of this activity on the environment.

**Acquiring geographical information**

**Question:**

What sustainable practices protect Kosciuszko National Park from the impacts of tourism?

- Why is the environment in the national park significant?
- What are the recreational uses of the national park?
- Who uses the national park for recreation and what are their perceptions of it?
- How do sustainable practices protect Kosciuszko National Park?

**Acquire data and information:**

- Watch the three short video clips: Winter Sports - Snowy Mountains - Kosciuszko National Park on the NSW National Parks You Tube collection: Mountains, snow, caves. [https://www.youtube.com/playlist?list=PLr1pR0nhb4Efw9pcBQo01xQ0KoLIFgN8K](https://www.youtube.com/playlist?list=PLr1pR0nhb4Efw9pcBQo01xQ0KoLIFgN8K)
- Each student gathers information on one recreational use of Kosciuszko National Park in order to evaluate the effect of the activity on the environment. They research background information on the activity, e.g. time of year, resources needed, people involved, reasons for the activity. Activities could include:
  - snow sports
  - horse riding
  - camping
  - bush walking
  - mountain biking
  - canoeing/kayaking
  - fishing
  - abseiling
  - caving
  - using mountain huts.

- Use media reports and other sources to research the effect of the recreational activity on the environment.

- Reference the ‘Caring for your Park’ tips on the downloadable park use maps to research ways people can reduce or minimise the effect of the activity on the environment.
Use media reports and blog posts to identify perceptions of recreational users of the park.


Processing geographical information

Students use geographical tools to represent, organise and analyse the data and information, for example:

- List the recreational uses of Kosciuszko National Park.
- Use symbols and a legend to plot the recreational activities on a map of the park.
- Create a table that summarises the main information about one recreational activity.
- Generate a consequences chart to describe the impacts of the recreational activity on the environment.
- Construct a Venn diagram, concept map or comic strip that explains potential differing perceptions on managing a recreational use, e.g., mountain bike rider wants more rugged trails vs park manager who wants to protect the plants and animals, landscape and waterways. Display and make comparisons between various types of users.
- Construct a cause and effect chart that lists impacts of the recreational activity and sustainable practices by park users and park managers that minimise impacts.

Communicating geographical information

Communicate:

Students use this information to write a blog post, newspaper report or letter to the editor. Their writing needs to include:

- the location and some background information on the recreational activity
- the effect of the recreational activity on the environment
- ways people can reduce or minimise the effect of the activity on the environment
- ways the activity is managed by the national park.

Respond:

Students include a personal opinion, with reasons, on sustainability practices that protect Kosciuszko National Park.

Students state how they can care for a local park when they visit it.

Resources

<table>
<thead>
<tr>
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• fieldwork instruments such as measuring devices, maps, photographs |
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• tally charts, pictographs, data tables, column graphs, simple statistics |
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• photographs, illustrations, diagrams, story books, multimedia, web tools |
| **Sustainability:** the capacity of the environment to continue to support our lives and the lives of other living creatures into the future eg ways in which people, including Aboriginal and Torres Strait Islander Peoples, use and protect natural resources; differing views about environmental sustainability; sustainable management of waste. |  |  |
## STAGE 2 GEOGRAPHY: Natural environments

### Focus area: The Earth’s environment

<table>
<thead>
<tr>
<th>Different environments</th>
<th>Significance of environments</th>
</tr>
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</table>

### Key inquiry questions
- How does the environment support the lives of people and other living things?
- How can people use places and environments more sustainably?

### Content focus

**Students:**
- explore the climate, natural vegetation and native animals of places in Australia
- examine the importance of natural vegetation and natural resources to the environment, animals and people
- learn about the ways people value environments, including Aboriginal and Torres Strait Islander Peoples

### Outcomes

A student:
- examines features and characteristics of places and environments **GE2-1**
- describes the ways people, places and environments interact **GE2-2**
- acquires and communicates geographical information using geographical tools for inquiry **GE2-4**

### Overview

The geographical inquiry process will locate the natural vegetation types of Australia, investigate the ways vegetation is used by animals in the environment and the ways people use natural resources. This learning is shaped by four inquiries, which vary in length.

**Note:** Teachers may need to adjust and scaffold learning activities as appropriate. Teachers can choose whether the inquiries are undertaken by individuals, pairs or groups, or as a whole class.

### Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
Different environments

Students:

- investigate the natural characteristics of Australia and a country in Asia, for example: (ACHGK020)
  - comparison of climate, natural vegetation and native animals GS VR

Significance of environments

Students:

- investigate the importance of natural vegetation and natural resources to the environment, animals and people, for example: (ACHGK021, ACHGK022, ACHGK024)
  - identification of types of natural vegetation eg forests, grasslands, deserts VR

Inquiry 1 – Natural vegetation of Australia

Students map and describe the characteristics of the natural vegetation types in Australia.

Note: The syllabus requires an investigation of natural characteristics in Australia and a country of Asia. Examining the natural characteristics of an Asian country forms part of a cultural study of Australia’s neighbours in the focus area Places are similar and different. If it is not covered there, repeat Inquiry 1 for an Asian country, e.g. China, and make comparisons between the two countries.

Acquiring geographical information

Question:
- What are the natural vegetation types of Australia?
- Where are the natural vegetation types located in Australia?

Acquire data and information:
- Reference a Google satellite image of Australia to observe and identify the natural vegetation types in Australia, e.g. forest, woodland.
- Reference a vegetation map of Australia, e.g. Australia’s vegetation map by Australian National Botanic Gardens.
- Reference the BOM climate zone map of Australia.
- Observe photographs of each vegetation type.
- Research information to describe each vegetation type.
- Research information on native animals that are typically found in each vegetation type.

Processing geographical information

- View a satellite image of Australia, noticing colours.
- On a base map of Australia, add a mapping overlay to represent the major vegetation types. Add a second overlay to represent the climate zone. Analyse the results. How does climate influence vegetation?
- Match photographs of each vegetation type to the vegetation types overlay.
- Construct a summary table of Australian vegetation types, illustrating and describing each type, its location and associated native animals.

Communicating geographical information

Communicate:

Students create an annotated map of the major vegetation types of Australia, plotting and describing each type.

Respond:

Students select images that promote the aesthetic values of each vegetation type.
### Significance of environments

**Students:**

- investigate the importance of natural vegetation and natural resources to the environment, animals and people, for example: (ACHGK021, ACHGK022, ACHGK024)
  - identification of types of natural vegetation eg forests, grasslands, deserts
  - explanation of the importance of natural vegetation to animals and the functioning of the environment eg provision of habitats, production of oxygen

### Inquiry 2 – Case study of a natural environment – fieldwork investigation

Select a specific Australian natural environment that is readily accessible for a fieldwork investigation, e.g. eucalyptus forest, mangrove forest, woodland, rainforest, wetland.

Students investigate the environment and produce a fieldwork report describing the importance of the environment to animals and people.

Note: The geographical inquiry process will need to be modelled and guided by the teacher.

### Acquiring geographical information

**Question:**

Inquiry questions should be specific to the natural environment selected for investigation, e.g. How does a eucalyptus forest provide for the needs of animals, people and the environment?

- Where is the environment located?
- What are the characteristics of the environment?
- What habitats are found in the environment?
- How do native animals use habitats in the environment?
- Why is this environment significant?

**Acquire data and information:**

- Locate the natural environment on a satellite image of the region. Identify other nearby natural environments.
- View photographs of the environment and identify the main vegetation type.
- **Fieldwork** – visit the environment. Use tools such as field sketches, photographs, plant surveys, invertebrate and vertebrate surveys and habitat checklists to record the natural and human features of the environment.
- Consult with local Aboriginal and Torres Strait Islander Peoples to share traditional knowledge on interrelationships between plants and animals in the environment.

### Processing geographical information

Students use geographical tools to represent, organise and analyse the data and information, for example:

- Create a map of the site that labels key features.
- Use native animal identification apps to identify the animals found in the environment and how they use the natural vegetation.
- Collate, categorise and annotate photographs taken during fieldwork.
- Create a table that lists the main plants and explains how they are used by animals in the environment.
- Construct a concept map for one habitat and list the animals that use it. Use arrows to identify the connections between the
animals.
- Represent connections between specific plants and animals using **illustrated flow charts**.

### Communicating geographical information

**Communicate:**

Students compile a **fieldwork report** that includes:

- a location map
- labelled field sketch
- annotated photographs
- description of the features of the environment
- plant and animal lists
- interrelationships between animals and plants
- actions that can protect the environment.

The report could be digital and/or multimodal, combining photographs, videos, sketches, diagrams and verbal or written explanations.

**Respond:**

Describe actions that people can take to protect the natural environment, e.g. bells on cats in surrounding areas, staying on walking tracks, native habitat gardens.

### Resources

- [Environmental and Zoo Education Centres NSW](http://doe.nsw.edu.au) (DoE fieldwork opportunities)
- Australian Museum, [Field Guide to NSW Fauna Mobile App](http://www.fieldguideapp.com)
- Field of Mars EEC, [Habitat Multitouch Book](http://www.habitatmultitouchbook.com)

### Learning connections:

*Science and Technology K–6 Syllabus*: Living world (Living things depend on each other and the environment to survive.)
**Significance of environments**

Students:

- investigate the importance of natural vegetation and natural resources to the environment, animals and people, for example: (ACHGK021, ACHGK022, ACHGK024)
  - identification of types of natural vegetation eg forests, grasslands, deserts VR
  - explanation of the importance of natural vegetation to animals and the functioning of the environment eg provision of habitats, production of oxygen F

**Inquiry 3 – Animal habitats**

**Student-centred inquiry into a natural animal habitat**

Students select their favourite animal, Australian or from another country. They investigate the habitat of the animal and produce a fact sheet describing the importance of the vegetation to the animal which they present to the class, advocating for their animal.

Note: The geographical inquiry process will need to be guided by the teacher.

**Acquiring geographical information**

**Question:**

Inquiry questions should be specific to the animal and habitat selected for investigation, e.g. How does a Jabiru black-necked stork use natural vegetation?

- Where does the Jabiru live?
- What are the features of its habitat?
- How does a Jabiru use its habitat?
- What other plants and animals does a Jabiru interact with and how?
- How is the Jabiru and its habitat protected?

**Acquire data and information:**

Support students to access a range of information sources and use a variety of geographical tools to support the geographical inquiry. For example:

- Use a wildlife fact sheet or websites to identify:
  - distribution of the animal
  - preferred habitat
  - diet
  - behaviours (interactions with the environment, breeding)
- View photographs and videos showing the relationships between animal and the environment.
- Access information that describes threats to the habitat and measures that protect the animal and its habitat.

**Processing geographical information**

Students use geographical tools to represent, organise and analyse the data and information, for example:

- Plot the distribution of the animal on a map. Overlay the vegetation types.
- Record and organise the information collected into a table.
- Represent connections between the animal and specific plants using illustrated flow charts.
- Construct a cause and effect chart explaining threats to the habitat and measures that protect it.
Communicating geographical information

Communicate:
Support students to draw conclusions on the importance of natural vegetation to the animal. Students create an **illustrated fact sheet** on the animal, describing its habitat, diet, behaviours and other uses of the environment. Students present their animal and its habitat to the class in a creative way, advocating for their animal.

Respond:
If only five animals and their habitats were to be protected, determine as a class the five to ‘save’. Students work collaboratively on a **‘SWOT’ analysis** of each animal researched by students. Use strategies to reach consensus on five.

**Resources**
Australian Museum, [Animals](#)
[Birds in Backyards](#)
Field of Mars EEC, [Habitat Multitouch Book](#)
Field of Mars EEC, [Ringtail Possum Multitouch Book](#)

**Learning connections:**
*Science and Technology K–6 Syllabus*: Living world (Living things depend on each other and the environment to survive.)
Significance of environments

Students:

- investigate the importance of natural vegetation and natural resources to the environment, animals and people, for example: (ACHGK021, ACHGK022, ACHGK024)
  - identification of types of natural vegetation eg forests, grasslands, deserts VR
  - discussion of the importance of natural vegetation and natural resources to people eg provision of food, medicine, fuel, timbers, fibres, metals F 🌱

Protection of environments

Students:

- investigate sustainable practices that protect environments, including those of Aboriginal and Torres Strait Islander Peoples, for example: (ACHGK023, ACHGK024, ACHGK025) 🌱
  - examination of how environments can be used sustainably eg sustainable agricultural, commercial 🌱
  - discussion of ways waste can be managed sustainably VR 🌱

Inquiry 4 – Using natural resources sustainably

Students investigate the importance of natural resources to people and consider how they can be used sustainably. They create an animation that shows the natural resources used in the production of a geography exercise book (or other product).

Acquiring geographical information

Question:

Inquiry questions should be specific to the product under investigation, e.g. What is my geography journal made of and where did the natural resources come from?

- What are the components of my geography journal?
- What natural resource is each component made from? (paper, steel staples, printing inks)
- Where are the natural resources for each component sourced?
- What other natural resources do forests provide for people?
- How can natural resources be managed sustainably?

Acquire data and information:

Support students to access a range of information sources and to use a range of geographical tools to support the geographical inquiry. For example:

- Use natural resources websites to collect information on natural resources used in making this product.
- Use search terms such as ‘paper life cycle’ and ‘steel life cycle’ to source ‘cradle to grave’ flowcharts, paying attention to the ‘cradle’ phase. (Note: The focus in geography is on the interconnection between natural resources and people. Production processes are the domain of Science and Technology.)
- Source natural resource maps in atlases to identify the natural resources in Australia.
- Research information on other forest and rainforest resources currently used by people, e.g. food, medicine, timber, fibres.
- Consult with Aboriginal and Torres Strait Islander people on natural resource use.

Processing geographical information

Students use geographical tools to represent, organise and analyse the data and information, for example:

- Construct a flowchart to explain the source of the components of this product and a brief explanation of their life cycle. Students provide waste options and the impacts of these, e.g. landfill and recycling.
- Plot the location of the source of the natural resources on a map, e.g. location of plantation forests, location of iron ore mines.
- Construct a table listing forest and rainforest products and their uses by people. Include a column to identify sustainable management practices.
- Create a **concept map** that illustrates and explains the variety of ways that people, including Aboriginal and Torres Strait Islander people, use the natural resources forests provide.

**Communicating geographical information**

**Communicate:**

Support students to draw conclusions on the importance of natural resources to people. Students create an **animation** that shows the natural resources used in the production of a geography journal (or other product) and how they are important to people.

The animation can be created using 3D materials in apps such as iMotion or using the **Slowmotion** technique. Alternatively it can be created in 2D with a narration using an app such as Show Me or Explain Everything.

**Respond:**

Explain ways of reducing natural resource use though actions at home and school, e.g. recycling.

**Resources**

CERES, [Product Life Cycle Resources](#)

**Learning connections:**

*Science and Technology K–6 Syllabus: Products* (There are various processes involved in the ways products are designed and produced.)

*History K-10 Syllabus: First contacts* (The diversity and longevity of Australia’s first peoples and the ways Aboriginal and/or Torres Strait Islander peoples are connected to Country and Place and the implications for their daily lives.)
### Geographical concepts

**Place:** *the significance of places and what they are like* eg natural and human features and characteristics of different places and their similarities and differences; how people’s perceptions about places influence their responses and actions to protect them.

**Space:** *the significance of location and spatial distribution, and ways people organise and manage spaces that we live in* eg settlement patterns within Australia, neighbouring countries and other countries.

**Environment:** *the significance of the environment in human life, and the important interrelationships between humans and the environment* eg how climate and environment influence settlement patterns; interconnections between people and environments; differing ways people can use environments sustainably.

**Interconnection:** *no object of geographical study can be viewed in isolation* eg interconnections between people, places and environments; influence of people’s values on the management and protection of places and environments and the custodial responsibilities of Aboriginal and Torres Strait Islander Peoples.

**Scale:** *the way that geographical phenomena and problems can be examined at different spatial levels* eg types of settlement across a range of scales; the influence of climate across a range of scales.

**Sustainability:** *the capacity of the environment to continue to support our lives and the lives of other living creatures into the future* eg ways in which people, including Aboriginal and Torres Strait Islander Peoples, use and protect natural resources; differing views about environmental sustainability; sustainable management of waste.

### Geographical inquiry skills

**Acquiring geographical information**

- develop geographical questions to investigate (ACHGS019, ACHGS026)
- collect and record relevant geographical data and information, for example, by observing, by interviewing, conducting surveys, or using maps, visual representations, the media or the internet (ACHGS020, ACHGS027)

**Processing geographical information**

- represent data by constructing tables, graphs and maps (ACHGS021, ACHGS028)
- represent information by constructing large-scale maps that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS022, ACHGS029)
- interpret geographical data to identify distributions and patterns and draw conclusions (ACHGS023, ACHGS030)

**Communicating geographical information**

- present findings in a range of communication forms, for example, written, oral, digital, graphic, tabular and visual, and use geographical terminology (ACHGS024, ACHGS031)
- reflect on their learning to propose individual action in response to a contemporary geographical challenge and identify the expected effects of the proposal (ACHGS025, ACHGS032)

### Geographical tools

**Maps** – M

- large-scale maps, world map, globe, sketch maps
- maps to identify location, direction, distance, map references, spatial distributions and patterns

**Fieldwork** – F

- observing, measuring, collecting and recording data, conducting surveys or interviews
- fieldwork instruments such as measuring devices, maps, photographs

**Graphs and statistics** – GS

- tally charts, pictographs, data tables, column graphs, simple statistics

**Spatial technologies** – ST

- virtual maps, satellite images, global positioning systems (GPS)

**Visual representations** – VR

- photographs, illustrations, diagrams, story books, multimedia, web tools
## STAGE 3 GEOGRAPHY: Bushfire mitigation

### Focus: Factors that shape places

<table>
<thead>
<tr>
<th>Bushfire hazard</th>
<th>Humans shape places</th>
</tr>
</thead>
</table>

### Key inquiry question
- How can the impact of bushfires on people and places be reduced?

### Content focus

**Students:**
- explore how the environment influences the human characteristics of places
- examine ways people influence the characteristics of places, including the management of spaces
- explore the impact bushfires have on Australian people, places and environments and propose ways people can reduce the impact of bushfires in the future.

### Outcomes

A student:
- explains interactions and connections between people, places and environments **GE3-2**
- compares and contrasts influences on the management of places and environments **GE3-3**
- acquires, processes and communicates geographical information using geographical tools for inquiry **GE3-4**

### Overview

The geographical inquiry process will investigate a contemporary Australian bushfire event. Through investigation of the case study, students will examine the location and extent of the bushfire, the impact on vegetation, animals and people and the role of government agencies in bushfire management. Shaped as a second inquiry, students will create a bushfire survival plan for an imaginary visit to a bushfire-prone area.

*Note: Be sensitive to the possibility that students, their family or friends, may have experienced bushfire events, some with tragic consequences.*

### Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
### Bushfire hazard

**Students:**
- investigate the impact of ONE contemporary bushfire hazard in Australia, for example: (ACHGK030)
  - identification of the location and extent of the disaster
  - description of the impact of the disaster on natural vegetation and the damage caused to communities
  - examination of how people can prevent and minimise the effects of a bushfire

### Humans shape places

**Students:**
- investigate how people influence places, for example: (ACHGK029)
  - description of who organises and manages places eg local and state governments
  - identification of ways people influence places and contribute to sustainability eg roads and services

### Factors that change environments

**Students:**
- investigate the ways people change the natural environment in Australia and another country, for example: (ACHGK026, ACHGK027)
  - examination of how

### Inquiry 1: Student-centred inquiry into the impact of a recent Australian bushfire disaster

**Students** investigate the impacts of a contemporary bushfire disaster.

Note: Do be sensitive to the possibility that students, their family or friends may have experienced bush fire events, some with tragic consequences.

### Acquiring geographical information

**Question:**

Select one bushfire event that occurred at a particular place and time as a case study. Clearly articulate the aim or purpose of the geographical investigation, e.g. What were the impacts of the October 2013 Blue Mountains bushfire disaster on the communities of Springwood, Winmalee and Yellow Rock?

Generate geographical questions to investigate and plan the inquiry, contextualised to the specific case study.

- Where is the place located?
- What are the natural features of the place that made it fire prone? (e.g. vegetation, slope, aspect, weather)
- What are the human features of the place that contributed to the disaster? (e.g. settlement patterns, roads and services)
- Did the local Aboriginal people use fire to manage the landscape and for hunting?
- What was the impact of the disaster on the vegetation, animals and human features of the area?
- What actions did people who live and work in the area take?
- What agencies managed the response to the disaster and what was their role?
- What bushfire disaster management strategies changed in response to the disaster?

### Acquire data and information:

Decide what sort of information is needed to support the geographical inquiry and where the information can be sourced, e.g. media,

Identify the geographical tools required to access information such referencing a variety of maps, undertaking virtual fieldwork, accessing data, and using spatial technologies and visual representations.

Support students to develop a system for recording information collected during the research process.

Examples of data and information sources:

- Use **Google maps** to locate the place. Locate a fire map of the area to examine the extent and spread of the bushfire, e.g search ‘Winmalee fire map’.
- Use **satellite imagery**, Google Street View **photographs** and **topographic maps** to develop descriptions of the main geographical features.
people, including Aboriginal and Torres Strait Islander Peoples, have influenced each country’s environmental characteristics e.g. land clearing, use of fire.

- Access climate maps and weather statistics for the place and date of the disaster from the BOM Climate Summaries Archive.
- Research the typical elements using the BOM Bushfire Weather page.
- Use multimedia sources, e.g. news footage, news stories, media photograph galleries, to research information on the impacts of the disaster and the actions taken by people living and working in the area.
- Use multimedia sources on emergency management agencies’ websites to research their role in and response to the disaster. E.g. Rural Fire Service, Fire and Rescue NSW, State Emergency Services.
- Research 'lessons learnt' and changes to bushfire communication and management that have resulted from the disaster.

Processing geographical information
- On a large-scale satellite image of the area, label the vegetation types, human features and plot the fire-affected area. Include the map orientation. Describe spatial relationships between settlement patterns, topography, and fire-affected areas. (E.g. ridge-top housing areas.)
- Construct a comparison table of traditional Aboriginal fire use for land management and present fire use.
- Draw connections between climate maps, statistics and fact sheets and describe high-risk bushfire weather conditions.
- Use a Venn diagram to list the impacts of the bushfire, describing changes to the area pre- and post-bushfire.
- Use flow charts to explain how individuals, community groups and emergency response agencies respond to bushfires.
- Use consequence charts to describe patterns and relationships of weather, topography, land use and the impact on bushfire events.
- Construct a cause and effect table to explain the 'lessons learnt' after the fire event, describing changes that have been implemented.

Communicating geographical information

Communicate:
Create a multimedia text that reports on the contemporary bushfire case study. The report should be framed using the inquiry questions as section headings.

Respond:
Discuss the 'lessons learnt' and relate to personal contexts. If you were living or holidaying in a similar area to the case study bushfire, what pre-bushfire seasons preparations would you make? What would you do in the event of a fire?
This discussion will lead into Inquiry 2: Bushfire Survival Plan.
### Resources:

- ABC News, 25 October 2013, [In pictures: NSW bushfires](#)
- ABC Western Plains, 11 March 2013, A timeline of the Coonabarabran Fires
- Bureau of Meteorology, [Climate Summaries Archive](#)
- Bureau of Meteorology, [Bushfire Weather](#)
- NSW Fire and Rescue
- NSW Rural Fire Service
Bushfire hazard
Students:
• investigate the impact of ONE contemporary bushfire hazard in Australia, for example: (ACHGK030)
  – identification of the location and extent of the disaster
  – description of the impact of the disaster on natural vegetation and the damage caused to communities
  – examination of how people can prevent and minimise the effects of a bushfire

Inquiry 2: Bushfire survival plan
Students imagine they are planning a holiday or visit to a bushfire-prone area during the January school holidays. They develop a bushfire survival plan for their family.
Note: Do be sensitive to the possibility that students, their family or friends may have experienced bush fire events, some with tragic consequences.

Acquiring geographical information
Set the scene by using a range of texts, such as The GeoSIX and the Bushfire and/or Fire by Jackie French and Bruce Whatley.

Question:
– What is a bushfire survival plan?
– What is contained in bushfire survival plan?
– Why is a bushfire survival plan needed?

Acquire data and information:
– Reflect on the impacts of and ‘lessons learnt’ from the bushfire event investigated in Inquiry 1.
– Examine the components of a NSW bushfire survival plan.

Processing geographical information
– Construct a summary table of the risks of bushfire per vegetation type.
– Ensure students have developed their understanding of the factors that affect bushfire safety and actions that minimise the danger of bushfire:
  o Understanding of the causes and management of bushfires.
  o Understanding people’s responsibilities for the prevention of bushfires.
  o Understanding actions in the event of a bushfire.

Communicating geographical information
Communicate:
Support students to complete the NSW Rural Fire Service bushfire survival plan.
Students present and share their survival plans.
Respond:
As a class, identify civic action that they could undertake with regard to the impact of bushfires on people, animals and the environment.
<table>
<thead>
<tr>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW Rural Fire Service, <a href="link">Bushfire Survival Plan</a></td>
</tr>
<tr>
<td>BOM, <a href="link">What to do in a bushfire</a> (link to each state and territory)</td>
</tr>
<tr>
<td><em>Fire</em> by Jackie French and Bruce Whatley</td>
</tr>
<tr>
<td>GeogSpace <a href="link">The GeoSIX and the Bushfire</a></td>
</tr>
</tbody>
</table>

**Learning connections:**

*Science and Technology K–6 Syllabus*: Built environments (design a low fire risk dwelling); Earth and Space (bush fire warning systems)

*Literacy* – texts such as *Fire* by Jackie French and Bruce Whatley, *My Country* by Dorothea Mackellar.
<table>
<thead>
<tr>
<th>Geographical concepts</th>
<th>Geographical inquiry skills</th>
<th>Geographical tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Place:</strong> the significance of places and what they are like eg characteristics of places.</td>
<td><strong>Acquiring geographical information</strong></td>
<td><strong>Maps</strong> – M</td>
</tr>
<tr>
<td><strong>Space:</strong> the significance of location and spatial distribution, and ways people organise and manage spaces that we live in eg; how people organise and manage spaces in their local environment.</td>
<td>• develop geographical questions to investigate and plan an inquiry (ACHGS033, ACHGS040)</td>
<td>• large-scale maps, small-scale maps, topographic maps, flowline maps</td>
</tr>
<tr>
<td><strong>Environment:</strong> the significance of the environment on human life, and the important interrelationships between humans and the environment eg how the environment influences people and places; how people influence the environment; the effect of natural disasters on the environment.</td>
<td>• collect and record relevant geographical data and information, using ethical protocols, from primary data and secondary information sources, for example, by observing, by interviewing, conducting surveys, or using maps, visual representations, statistical sources and reports, the media or the internet (ACHGS034, ACHGS041)</td>
<td>• maps to identify location, latitude, direction, distance, map references, spatial distributions and patterns</td>
</tr>
<tr>
<td><strong>Interconnection:</strong> no object of geographical study can be viewed in isolation eg how environments influence where people live; ways people influence the characteristics of their environments.</td>
<td><strong>Processing geographical information</strong></td>
<td><strong>Fieldwork</strong> – F</td>
</tr>
<tr>
<td><strong>Scale:</strong> the way that geographical phenomena and problems can be examined at different spatial levels eg environmental and human characteristics of places on local and regional scales; the effect of events on people and places locally and regionally.</td>
<td>• evaluate sources for their usefulness (ACHGS035, ACHGS042)</td>
<td>• observing, measuring, collecting and recording data, conducting surveys and interviews</td>
</tr>
<tr>
<td><strong>Sustainability:</strong> the capacity of the environment to continue to support our lives and the lives of other living creatures into the future eg extent of environmental change; environmental management practices; sustainability initiatives.</td>
<td>• represent data in different forms, for example plans, graphs, tables, sketches and diagrams (ACHGS035, ACHGS042)</td>
<td>• fieldwork instruments such as measuring devices, maps, photographs, compasses, GPS</td>
</tr>
<tr>
<td><strong>Change:</strong> explaining geographical phenomena by investigating how they have developed over time eg changes to environmental and physical characteristics of places.</td>
<td>• represent different types of geographical information by constructing maps that conform to cartographic conventions using spatial technologies as appropriate (ACHGS036, ACHGS043)</td>
<td><strong>Graphs and statistics</strong> – GS</td>
</tr>
<tr>
<td></td>
<td>• interpret geographical data and information, using digital and spatial technologies as appropriate, and identify spatial distributions, patterns and trends, and infer relationships to draw conclusions (ACHGS037, ACHGS044)</td>
<td>• pictographs, data tables, column graphs, line graphs, climate graphs</td>
</tr>
<tr>
<td></td>
<td><strong>Communicating geographical information</strong></td>
<td><strong>Spatial technologies</strong> – ST</td>
</tr>
<tr>
<td></td>
<td>• present findings and ideas in a range of</td>
<td>• virtual maps, satellite images, global positioning systems (GPS)</td>
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<td><strong>Visual representations</strong> – VR</td>
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<td></td>
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<td>photographs, aerial photographs, illustrations, flow diagrams, annotated diagrams, multimedia, web tools.</td>
</tr>
<tr>
<td>Human characteristics of places.</td>
<td>Communication forms as appropriate (ACHGS038, ACHGS045)</td>
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<tr>
<td>• reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge and describe the expected effects of their proposal on different groups of people (ACHGS039, ACHGS046)</td>
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</table>
## STAGE 3 GEOGRAPHY: Connections and perceptions

### Focus area: A diverse and connected world

<table>
<thead>
<tr>
<th>Connections shape perceptions</th>
<th>Global connections</th>
</tr>
</thead>
</table>

### Key inquiry questions

- What are Australia’s global connections?
- How do people’s connections to places affect their perception of them?

### Content focus

**Students:**

- explore countries of the Asia region and the connections Australia has with other countries across the world
- explore and reflect upon similarities, differences and the importance of intercultural understanding

### Outcomes

**A student:**

- describes the diverse features and characteristics of places and environments **GE3-1**
- explains interactions and connections between people, places and environments **GE3-2**
- acquires, processes and communicates geographical information using geographical tools for inquiry **GE3-4**

### Overview

Students undertake a case study into a specific foreign country through two geographical inquiry processes. The first asks students to investigate the connections between Australia and the other country in question (e.g. trade, aid, tourism, sporting, diplomatic). The second inquiry explores the various perceptions and perspectives people have about the chosen country. Students then seek to identify factors that influence people’s perceptions of places (e.g. media, culture, education, travel) and discuss the nature of generalisations and stereotypes.

**Note:** The capacity of students to engage with the inquiries and content matter will be much greater in Year 6 than early in Year 5. Teachers will need to adjust and scaffold learning activities as appropriate.

### Assessment

Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
Global connections

Students:
investigate connections between Australia and other countries of
the world, for example:
(ACHGK034, ACHGK035)

- description of connections
  Australia has with other
countries e.g trade,
migration, tourism,
  aid

Selecting your case study

Teachers will need to think carefully when choosing the foreign
countries to be studied. This is not a cultural study; it is a study of
connections and perceptions. The richest case studies will be
countries that have three characteristics:

- The country has a wide variety of connections with Australia.
  Countries that receive aid from Australia will provide an
  additional angle that will allow exploration of humanitarian
  connections.

- There are a variety of perceptions of the country. The syllabus
  instructs students to "investigate how connections influence
  people’s perception and understanding of places” and suggests
  “discussion of the effect of generalisations and stereotypes”. It is
  crucial that the country be one about which people have an
  opinion, and if possible, about which a range of opinions exist.

- The syllabus also suggests exploration of the “factors that
  influence people’s perceptions”, including the importance
  of connections people have. Choosing a country to which people
  have a connection (e.g. a travel destination or home to relatives)
  will be helpful.

Suggestions for possible choices include:
- Indonesia
- Papua New Guinea
- Nepal
- Afghanistan
- East Timor (Timor-Leste)

Inquiry 1 – Connections

Students investigate the range of connections between Australia and
the chosen country (e.g. Indonesia).

Acquiring geographical information

Question:

Clearly articulate the aim or purpose of the geographical
investigation, e.g. What connections does Australia have with
Indonesia?

Generate geographical questions to investigate and plan the inquiry,
contextualised to the specific case study. For example:

- What diplomatic connections does Australia have with
  Indonesia? (i.e. an equivalent question for each connection
category)

- How has the connection been established?
- Who is involved in maintaining this connection?
- Why is this connection important?
- How does this connection strengthen the relationship between
  Australia and Indonesia?
- What could threaten this connection?
Acquire data and information:
- Familiarise the students with the chosen country.
  - Locate the chosen country on a variety of maps, paying attention to scale.
  - Find photographs depicting the country.
  - Review a range of print and online resources (e.g. books, travel brochures, online resources).
- Investigate each type of connection using print and/or online resources. (Sample sources are listed below.)
- Interview someone who has connections with the country (e.g. family links, business connections).

Online resources:

Generic portrayals
- Lonely Planet

Governmental/Diplomatic Connections
- The Department of Foreign Affairs and Trade (DFAT) website
- The High Commission website for your chosen country

Trade
- DFAT Trade and Economic Fact Sheets
- Online exchange rate calculators

Migration
- Australian Bureau Statistics information on migrants and migration.

Tourism
- Statistics on Australians travelling overseas and international tourism statistics by Tourism Research Australia
- The DFAT Smart Traveller website
- Airline, cruise ship and general travel websites and publications.

International Organisations & Agreements
- The Australian Treaties Database
- The Commonwealth website
- The United Nations and its sub-organisations

Humanitarian/Aid
- The DFAT Australian Aid website
- Amnesty International and Greenpeace allow searches based on country names.

Processing geographical information
- Review the research information collected, and examine and evaluate it for usefulness and/or bias.
- Explicitly teach the visual literacy skills involved in understanding the information conveyed through visual representations in the
acquired information.

Use geographical tools to collate or present in a different way the information collected, for example:

- Develop descriptions of the various political and diplomatic connections.
- With a political map as a base map, use mapping overlays to indicate travel and trade routes.
- Create a data table outlining sporting connections.
- Create two pie graphs showing imports and export destinations (including “other”).
- Create a column graph or compound column graph that shows visitors to and from the chosen country. Create a line graph to track visitors over time.
- Develop consequences charts to explain predicted impacts of changes to connections (positive and negative).
- Create a concept map listing all the types of connections that exist.

**Communicating geographical information**

**Communicate:**

Students create an infographic that embeds a variety of visual representations of some the connections between the countries.

**Respond:**

- Discuss how Australia could strengthen the connections and relationship between the two countries.
- Write letters/emails to the High Commission expressing solidarity and support for Australia’s international connections with their country.

**Learning connections:**

*English K-6 Syllabus:* Visual literacy skills are required and developed through this inquiry.

*Mathematics K-6 Syllabus:* The geographical tools used in this inquiry reflect content found in the Data substrand of the Statistics and Probability strand.
Connections shape perceptions
Students:
investigate how connections influence people’s perception and understanding of places, for example:
(ACHGK036)
- identification of factors that influence people’s perceptions of places eg media, culture, education, travel
- discussion of the effect of generalisations and stereotypes about places

Inquiry 2 – Perceptions
After gathering factual data on the connections between the two countries in Inquiry 1, students conduct an inquiry into the ways the chosen country is perceived and portrayed. Students explore the factors underlying these perceptions and portrayals and consider the effect of the viewpoints.

Acquiring geographical information
Question:
Clearly articulate the aim or purpose of the geographical investigation, for example:
- How is Indonesia portrayed and perceived in Australia?
Generate geographical questions to investigate and plan the inquiry, contextualised to the specific case study, for example:
- How is Indonesia portrayed in the media / on government websites / in travel brochures?
- How is Indonesia perceived in this portrayal?
  - What connection has the author with Indonesia?
  - What is its intended audience and purpose?
  - What language forms and features are being used?
  - Does it use objective or subjective language?
  - Is there evidence of bias?
  - What effects might this portrayal have?
  - Does it foster generalisations and/or stereotypes?
- What factors have contributed to the range of perceptions people hold about Indonesia? What significance and validity do you give each factor?
- How do people’s connections to Indonesia affect their perceptions?

Acquire data and information:
- Expose students to a series of portrayals of the chosen country. Apply critical literacy skills to evaluate each portrayal. Note: Teachers may wish students to conduct online searches for material. The use of a Google Custom Search Engine to constrain search results will prevent inappropriate material being found. Portrayals may include:
  - Travel brochures
  - Depictions in literature
  - Government websites (both Australian and belonging to the country in question)
  - News articles
  - Photographs
  - Documentaries
- Interview someone who has connections with the country (e.g. family links, business connections).
- Develop and conduct a survey of community members to ascertain their perceptions of and knowledge about the country in question.

**Processing geographical information**

- Assist students to progressively complete a perceptions analysis table in which each portrayal of the chosen country is analysed according to a series of categories, for example:
  - connection of the author to the country
  - objective facts
  - subjective opinions
  - language features
  - evidence of bias
  - summary.

- Use a T-chart to represent perceptions (positive and negative) gathered through surveys.

- Assist students to compare and evaluate the variety of perceptions discovered. Do any perceptions generalise or stereotype the chosen country? What effects might this have?

**Communicating geographical information**

**Communicate:**

Students create a multimedia presentation or visual collage entitled ‘Many Eyes – One Country’ (or similar) that portrays the range of perceptions that people have of the chosen country. Students annotate each perception with contextual data regarding the author’s connection with the country. Teachers can also choose the extent to which the annotations critique the perception (i.e. the degree to which it is a stereotype or portrays bias).

Create a ‘Did you know?’ page for your class or school website about the perceptions of the chosen country and/or its connections with Australia.

**Respond:**

Discuss the variety of factors affecting our perceptions of places, and how perceptions can be affected by personal connections. Discuss the effects of generalisations and stereotypes. Invite students to consider how these phenomena affect their social world and what might be done.

**Learning connections:**

*English K-6 Syllabus:* Critical literacy skills are required and developed through this inquiry.
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STAGE 3 GEOGRAPHY: Contemporary land use issue

Focus area: Factors that shape places

<table>
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<th>Factors that change environments</th>
<th>Humans shape places</th>
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</thead>
</table>

Key inquiry questions
- How do people and environments influence one another?
- How do people influence places and the management of spaces within them?

Content focus
Students:
- investigate how people change the natural environment in Australia
- examine ways people influence the characteristics of places, including the management of spaces

Outcomes
A student:
- describes the diverse features and characteristics of places and environments GE3-1
- explains interactions and connections between people, places and environments GE3-2
- compares and contrasts influences on the management of places and environments GE3-3
- acquires, processes and communicates geographical information using geographical tools for inquiry GE3-4

Overview
The geographical inquiry process will investigate a contemporary geographical land use or planning issue as a case study at a local or regional scale. Through investigation of the issue, students will examine the geographical characteristics of the site, the interconnections between the place and a range of people with varying points of view, the role of government in the issue, and sustainability considerations. Students will also develop understanding of the decision-making processes and roles and responsibilities of the different levels of government.

Note: The capacity of students to engage with the inquiry will be much greater in Year 6 than early in Year 5. Teachers will need to adjust and scaffold learning activities as appropriate. Teachers can choose whether the case study is undertaken by groups or as a whole class.

Assessment
Many of the activities require students to demonstrate their learning. These activities can be used to assess student learning at various stages throughout the inquiry process.
Factors that change environments

Students:

- investigate the ways people change the natural environment in Australia and another country, for example: (ACHGK026, ACHGK027)
  - examination of how people, including Aboriginal and Torres Strait Islander Peoples, have influenced each country’s environmental characteristics eg land clearing, use of fire.

Humans shape places

Students:

- investigate how people influence places, for example: (ACHGK029)
  - description of who organises and manages places eg local and state governments
  - identification of ways people influence places and contribute to sustainability eg roads and services, fire management strategies
  - examination of a local planning issue; the different views about it and a possible action in response to it.

Student-centred inquiry into a contemporary land-use or local planning issue

Students work in small groups to investigate a teacher-selected land-use or local planning issue. They create a three-minute documentary, providing a balanced view, that discusses the positive and negative outcomes of the issue.

Selection of a land use or planning issue

Select one issue for the class. Case study examples could include:

- Local council area: subdivision of an area that had previously been farmland; rezoning or redevelopment of a factory area into residential apartments; clearing of bushland for a specific purpose; building of playing fields or golf course; regeneration of a local catchment area. These are often featured in the local newspaper.
- Regional area: tourism expansion and developments; changing use of an area from natural bush to residential, e.g. north-western Sydney; farmland being mined, e.g. Liverpool Plains; actions to protect an endangered species, e.g. plants or animals; regeneration of a coastal area; land clearing; water catchment, fresh water supply or irrigation, e.g. Snowy River, Darling River, dams. These issues are often discussed in state-based media.

Acquiring geographical information

Question:

Clearly articulate the aim or purpose of the geographical investigation, e.g. What is the impact of the planned high density residential development on the national park?

Generate geographical questions to investigate and plan the inquiry, contextualised to the specific case study.

- Where is the place located?
- What was the ‘country’ like when the traditional Aboriginal people lived in the place?
- What are the geographical features of the place today?
- How is the place organised and used?
- What are the impacts of the proposed land use change?
- Who will be advantaged and who will be disadvantaged by the land use change?
- What actions are required to ensure that a variety of factors are supported or managed? E.g. sustainability, population changes.

Acquire data and information:

Decide what sort of information is needed to support the geographical inquiry and where the information can be sourced, e.g. local council, NSW Planning and Environment, Transport for NSW, Landcom.

Identify the geographical tools required to access information such referencing a variety of maps, undertaking fieldwork, accessing data, and using spatial technologies and visual representations.

Support students to develop a system for recording information.
Examples of data and information sources:

- Source a range of maps to describe the location. Use appropriate spatial technologies and visual representations to describe the place.

- Research information on the traditional Aboriginal people of the area: how they managed the land, the fresh water sources, what they planted, harvested and hunted to meet their needs. Does the place have seasonal or ceremonial significance? Talk to local Aboriginal community members about the place and culture.

- Collect current photographs of the place and label the main geographical features.

- Fieldwork: visit the site. Draw and label the geographical features in a field sketch. Use other fieldwork techniques such as recording human uses through photographs, conducting biodiversity surveys, assessing vegetation distribution, water quality testing, mapping land uses and observing impacts.

- Source appropriate data and other statistical information relating to the issue, e.g. population growth forecasts, predicted usage estimates.

- Develop and conduct a survey of community members to ascertain their perceptions of impact of the change (positive and negative) on people, flora and fauna, water supply, and other aspects of the place.

- Determine the role of government in planning, developing or managing the place.

### Processing geographical information

Use geographical tools to collate and review the data and information collected and evaluate for its usefulness, for example:

- On a topographic map or satellite image as a base map, use mapping overlays to describe the current and proposed geographical features of the place. Analyse changes, spatial distributions and patterns.

- Use photographs and information researched to construct a futures table to represent past, present and future uses of the place. Analyse the changes of time and make predictions for the future.

- Assemble and annotate photographs to provide a visual representation of the site. Analyse and label interconnections.

- Develop consequences charts to explain predicted impacts (positive and negative).

- Construct multiple graphs and précis maps to represent diversity of flora and fauna (biodiversity), vegetation coverage, water quality results, population data and land use. Analyse and interpret the data.

- Use a T-chart to represent data on perceived impacts gathered through surveys. Interpret patterns and trends.

- Construct a flow chart or concept map to explain the role of
government, and other major stakeholders, in the issue. Identify connections among them.

- Ensure students have developed their understanding of ways humans influence places and the different perceptions about the management of places and environments. Hold discussions that support students to develop conclusions about the issue being investigated.
  
  o Does the information relate to the inquiry questions used to shape the investigation?
  o Has the issue been examined from other people’s perspectives?
  o Can conclusions be drawn about the positive and negative aspects of the issue?
  o Has sustainability been considered?

**Communicating geographical information**

**Communicate:**

Students work in small groups to develop a three-minute documentary to convey their understandings of the issue, put forward arguments and opinions, support a specific course of action and explain the impact of this action on the environment.

The documentary should include:

- A clear description of the issue and some of the consequences for the environment;
- Tools such as maps, satellite images, graphs, statistics, flowcharts, labelled photographs, diagrams, illustrations and other labelled visual representations;
- Information on the traditional use of the place by Aboriginal people and the current perspective on the issue today from local Aboriginal people;
- A description of the role of government in organising or managing the place; and,
- A description and justification of a specific point of view and/or course of action in response to the issue.

**Respond:**

Describe and justify a specific point of view and/or course of action in response to the issue.

**Resources**

NSW Planning and Environment websites, e.g. [Sydney’s Growth Centres: A Plan for Growing Sydney](https://www.planning.nsw.gov.au/)

Transport for NSW [Projects](https://www.transport.nsw.gov.au/)

[Landcom](https://landcom.nsw.gov.au/)

[SIXMaps](https://www.sixmaps.com.au/)

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• evaluate sources for their usefulness (ACHGS035, ACHGS042)  
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STAGE 3 GEOGRAPHY: Engaging with Asia

Focus area: A diverse and connected world

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<th>Connections shape perceptions</th>
<th>Global connections</th>
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Key inquiry questions
- How do places, people and cultures differ across the world?
- How do people’s connections to places affect their perception of them?

Content focus
Students:
- explore countries of the Asia region and the connections Australia has with other countries across the world
- learn about the diversity of the world’s people, including the indigenous peoples of other countries
- explore and reflect upon similarities, differences and the importance of intercultural understanding

Outcomes
A student:
- describes the diverse features and characteristics of places and environments GE3-1
- explains interactions and connections between people, places and environments GE3-2
- acquires, processes and communicates geographical information using geographical tools for inquiry GE3-4

Overview
Students locate and identify a range of Asian countries. Students undertake a case study inquiry that compares and contrasts three Asian countries by examining the lives of three individuals or families (i.e. one from each country). At least one individual/family is to be drawn from that country’s indigenous people. Students identify the natural and human features of the place where each individual/family lives and explore the similarities and differences between their lives. Students reflect on the diversity of the world’s people, including its indigenous people, and consider the importance of intercultural understanding.

Notes:
The capacity of students to engage with the inquiries and content matter will be much greater in Year 6 than early in Year 5. Teachers will need to adjust and scaffold learning activities as appropriate.

This learning framework develops on the work done in the Stage 2 teaching and learning framework Australia’s neighbours.

Assessment
Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
Diversity across Asia
Students:
investigate the diversity in geographical characteristics within the Asia region, for example: (ACHGK031, ACHGK032)
- identification of countries of the Asia region in relation to Australia

The world’s cultural diversity
Students:
investigate the world’s cultural diversity, including the culture of indigenous peoples, for example: (ACHGK033)
- examination of various cultures eg customs, beliefs, social organisation

Connections shape perceptions
Students:
investigate how connections influence people’s perception and understanding of places, for example: (ACHGK036)
- identification of factors that influence people’s perceptions of places eg media, culture, education, travel
- discussion of the effect of generalisations and stereotypes about places

Inquiry 1 – Locating Asian countries
Students locate Asia and Asian countries.

Acquiring geographical information
Question:
- What is the extent of the continent of Asia?
- What countries are found in Asia and where are they located?

Acquire data and information:
- As a class, name as many Asian countries as possible.
- Use a range of virtual or printed maps to establish the extent of Asia and location of Asian countries, e.g. atlases, Google maps, Google Earth.
- Discuss knowledge and experiences of Asian countries, including news events, travel experiences and personal connections.
- Explore travel websites such as Lonely Planet to gain an overview of countries in the Asian region.

Processing & Communicating geographical information
- Students create a map of Asia on an A3 outline map of the world. Students create their own country borders and colour code each country using a legend.
- Students use cartographic conventions by adding a border, north point, legend and title to their map.
- Students can add annotations to show personal connections to various countries.

Communicating geographical information
Communicate:
Students discuss how their knowledge of and connections with various countries has affected their perceptions of them.
Student maps can be displayed and/or be scanned and included on a class website or in the school newsletter.

Respond:
Students select three Asian countries to compare in Inquiry 2.
Environments shape places

Students:

- investigate how the natural environment influences people and places, for example: (ACHGK028)
  - discussion of how climate influences the distribution of where people live (MGS)
  - comparison of how landforms influence where and how people live in Australia and another country (MVR)

Diversity across Asia

Students:

investigate the diversity in geographical characteristics within the Asia region, for example: (ACHGK031, ACHGK032)
  - identification of countries of the Asia region in relation to Australia (M)
  - examination of economic, demographic and social differences between countries of the Asia region (eg employment, population, lifestyle (GS))

The world’s cultural diversity

Students:

investigate the world’s cultural diversity, including the culture of indigenous peoples, for example: (ACHGK033)
  - examination of various cultures (eg customs, beliefs, social organisation)

Connections shape

Inquiry 2 – Comparing Asian countries

Students work in groups to compare the lives of three individuals/families in three different Asian countries. One of these three needs to be a member of an indigenous people group. The individuals/families can be either real, a literary character or hypothesised from general information gathered about a place.

**Acquiring geographical information**

**Question:**

Clearly articulate the aim or purpose of the geographical investigation, e.g. How do the lives of people living in different places and cultures differ across Asia?

Pose geographical questions to be contextualised to each individual/family, for example:

- Where does this person/family live?
- What are the main physical characteristics of this place (eg. landforms, vegetation, climate)?
- What are the main human features of this place (eg. built environment, population, employment, lifestyle)?
- How does this person/family interact with the place where they live?
  - What are their daily routines?
  - What do they wear and eat?
  - Where do they work or go to school? How do they get there?
  - What are their language(s), customs, beliefs and/or religion?
  - What cultural and/or economic activities do they engage in?
  - What social organisation characterises their lives?
- How have the lives of indigenous people been affected by other cultures?

Additional questions to assist students to compare the three individuals/families:

- What are the similarities and differences between the lives of the people examined?
- How can the similarities and differences be explained?
- To what extent do differences in the physical characteristics of where they live explain the differences in their lives?

**Acquire data and information:**

The first step is to identify the three individuals/families to be studied (eg. a real person, a literary character or a hypothesised individual based on a photograph). This will provide a starting point for understanding their lives (eg. personal knowledge, a novel, a picture).

Students will then need to gather information about the place where they live, including both physical and human characteristics.
Support students to access a wide range of information sources such as maps, climate graphs, visual representations including photographs, film clips and site video cams, as well as suitable internet sites.

- Reference **large-scale maps**, such as relief maps, political maps and satellite images, which show the landform and other physical features of the country.
- Source appropriate climate, population **statistics** and demographic **data** such as food production, occupations and religions.
- Examine daily life and culture, such as schooling, making a living, recreation, and special events. Use **photographs**, **illustrations**, **diagrams**, **picture books** and **multimedia** including apps.
- Source **contemporary information** from news events, travel brochures, images, and online travel blogs.

### Processing geographical information

Students use geographical tools to represent, organise and analyse the data and information for each person/family, for example:

- Use cartographic conventions to construct a **map** of the place where they live. Choose the most appropriate scale for the particular case study. Plot and label the main physical characteristics and human characteristics. Annotate places on the map that are significant to this person/family.
- Construct **climate graphs** that show rainfall (precipitation) as a **column graph** and temperature overlaid as a **line graph**. Interpret the data.
- Create an illustrated **table** of the major cultural features of life in this place. In each row of the table, use annotated **photographs**, diary style entries or descriptions to present information on culture and daily life. Organise and compile images and video clips. Add media to specific places on maps.
- Use a **consequences chart** to examine how physical characteristics of this place (e.g. temperature) affect aspects of their daily life (e.g. clothing).

Use tools to compare the lives of the three individuals/families:

- Represent similarities and differences using a three-way **Venn diagram**.
- Use a **comparison table** to compare key similarities and differences in the lives of the three individuals/families.

### Communicating geographical information

**Communicate:**

Students work in groups to create a **video** in which the three individuals/families meet to talk about their lives. Scripts can be created collaboratively using Google Docs. Students dress up, act and use props according to their role. One or more students can play the host for the meeting.
Respond:

Students discuss the diversity found across Asia and whether generalisations and stereotypes affect perceptions of this diversity. Students consider the effects of alternate cultures on the lives of indigenous people.

This learning is likely to uncover humanitarian or social justice issues. Teachers can consider what responses may be suitable in response (e.g. advocacy, fundraising).

Resources

Effective online searching will provide access to a wide range of resources. Some starting points include:

- **Global Education** resources
- **Time for Kids** resources on the day in the life of a child, for example: *A day in the life: Thailand* and *A day in the life: Indonesia*.
- [web-japan.org](http://web-japan.org)
- Caritas *Home: a full and beautiful life* pictorial journey, which demonstrates daily life around the world. Note: Caritas is a Catholic aid & development agency.
- **TEAR Australia educational resources** for schools include **Kids4Kids** DVDs on children living in Cambodia, an Indian village and a New Delhi slum. Note: TEAR is a Protestant aid and development agency, and portions are explicitly religious. Vimeo hosts a sample of each.

Related literary resources include:

- **The River** by Libby Hathorn and Stanley Wong
- **All in a Day** by Mitsumaso Anno
- **Dragonkeeper** by Carole Wilkinson
- **Secret Keeper** by Mitali Perkins
- **Trash** by Andy Mulligan
### Geographical concepts

| Place: the significance of places and what they are like eg characteristics of places. |
| Space: the significance of location and spatial distribution, and ways people organise and manage spaces that we live in eg; how people organise and manage spaces in their local environment. |
| Environment: the significance of the environment on human life, and the important interrelationships between humans and the environment eg how the environment influences people and places; how people influence the environment; the effect of natural disasters on the environment. |
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| Scale: the way that geographical phenomena and problems can be examined at different spatial levels eg environmental and human characteristics of places on local and regional scales; the effect of events on people and places locally and regionally. |
| Sustainability: the capacity of the environment to continue to support our lives and the lives of other living creatures into the future eg extent of environmental change; environmental management practices; sustainability initiatives. |
| Change: explaining geographical phenomena by investigating how they have developed over time eg changes to environmental and... |

### Geographical inquiry skills

| Acquiring geographical information |
| • develop geographical questions to investigate and plan an inquiry (ACHGS033, ACHGS040) |
| • collect and record relevant geographical data and information, using ethical protocols, from primary data and secondary information sources, for example, by observing, by interviewing, conducting surveys, or using maps, visual representations, statistical sources and reports, the media or the internet (ACHGS034, ACHGS041) |

| Processing geographical information |
| • evaluate sources for their usefulness (ACHGS035, ACHGS042) |
| • represent data in different forms, for example plans, graphs, tables, sketches and diagrams (ACHGS035, ACHGS042) |
| • represent different types of geographical information by constructing maps that conform to cartographic conventions using spatial technologies as appropriate (ACHGS036, ACHGS043) |
| • interpret geographical data and information, using digital and spatial technologies as appropriate, and identify spatial distributions, patterns and trends, and infer relationships to draw conclusions (ACHGS037, ACHGS044) |

| Communicating geographical information |
| • present findings and ideas |

### Geographical tools

| Maps – M |
| • large-scale maps, small-scale maps, topographic maps, flowline maps |
| • maps to identify location, latitude, direction, distance, map references, spatial distributions and patterns |

| Fieldwork – F |
| • observing, measuring, collecting and recording data, conducting surveys and interviews |
| • fieldwork instruments such as measuring devices, maps, photographs, compasses, GPS |

| Graphs and statistics – GS |
| • pictographs, data tables, column graphs, line graphs, climate graphs |
| • multiple graphs on a geographical theme |
| • statistics to find patterns |

| Spatial technologies – ST |
| • virtual maps, satellite images, global positioning systems (GPS) |

<p>| Visual representations – VR |
| • photographs, aerial photographs, illustrations, flow diagrams, annotated diagrams, multimedia, web tools. |</p>
<table>
<thead>
<tr>
<th>human characteristics of places.</th>
<th>in a range of communication forms as appropriate (ACHGS038, ACHGS045)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge and describe the expected effects of their proposal on different groups of people (ACHGS039, ACHGS046)</td>
<td></td>
</tr>
</tbody>
</table>
# STAGE 3 GEOGRAPHY: Why live where?

## Focus area: Factors that shape places

<table>
<thead>
<tr>
<th>Factors that change environments</th>
<th>Environments shape places</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

### Key inquiry questions
- How do people and environments influence one another?

### Content focus
**Students:**
- Explore how the environment influences the human characteristics of places.

### Outcomes
A student:
- Describes the diverse features and characteristics of places and environments **GE3-1**
- Explains interactions and connections between people, places and environments **GE3-2**
- Acquires, processes and communicates geographical information using geographical tools for inquiry **GE3-4**

### Overview
Students work in small groups to investigate a variety of homes around the world. They consider how geographic and environmental factors, such as landscape, climate, and/or landforms influence the way homes are designed, the building materials used and what is inside.

Students create a ten slide pictorial overview of various examples of homes that are built around the world. They will then select one place in the world with significant and differentiating natural environmental influences and their task is to design their own house labelling how these factors have influenced their design.

### Assessment
Many of the activities require students to demonstrate their learning. These activities can be used to assess student progress at various stages throughout the inquiry process.
Environments shape places

Students:

• investigate how the natural environment influences people and places, for example: (ACHGK028)
  - discussion of how climate influences the distribution of where people live
  - comparison of how landforms influence where and how people live in Australia and another country

Student-centred inquiry into children’s homes throughout the contemporary world

Students investigate homes throughout the contemporary world, how they are different, and how the natural environment influences where and how people live. They design a home using influences of the natural environment.

Note: This learning and teaching sequence will evolve into a pictorial journey, which demonstrates different examples of how the natural environment has influenced people and places around the world.

Acquiring geographical information

Question:

Clearly articulate the aim or purpose of the geographical investigation, e.g. How does the natural environment influence people and places around the world?

Generate geographical questions to investigate and plan the inquiry, to answer the question.

- What are examples of environmental factors that influence people and places?
- Why might some people’s homes be different from those where we live?
- Where are the homes? (e.g. country or city, mountainous area, desert, river)
- What are houses around the world built from? Why do you think these materials were used?
- What different shapes are houses? Why are the houses shaped like this? (e.g. climate)

Acquire data and information:

- Decide what sort of information is needed to support the geographical inquiry and where the information can be sourced, e.g. internet, picture books.
- Identify the geographical tools required to access information such referencing a variety of maps, accessing data, and using spatial technologies and visual representations to locate homes from around the world.
- Develop a system for recording information collected during the research process.

Examples of data and information sources:

- Source a range of maps to describe the location. Use appropriate spatial technologies and visual representations to describe where the home is located.
- Collect ten photographs of houses around the world and label the natural environmental influences that surround the home which have influenced the people who live there.
- Select one place in the world to complete an in-depth study of the effect of natural environment influences on their lifestyle, especially the housing of the area. (Note: The places chosen should have distinct climatic, landform and/or landscape features
for the students to research, such as Alaska, Singapore, Sri Lanka, Dubai.) Students may select a place from the information they already have attained using the photographs.

**Processing geographical information**

Use geographical tools to collate and review the data and information collected, for example:

- On a **topographic map** or **satellite image** as a base map, locate the location of the home in the picture and identify surrounding natural environmental features.
- Use collated photographs and information researched to construct a **table** to outline examples of natural environmental influences.

<table>
<thead>
<tr>
<th>House location</th>
<th>House description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Describe or draw</td>
</tr>
<tr>
<td>roof</td>
<td></td>
</tr>
<tr>
<td>walls</td>
<td></td>
</tr>
<tr>
<td>other features</td>
<td></td>
</tr>
</tbody>
</table>

- Students collate data from their in-depth study into a **table** to summarise their findings.
- Create **flowcharts** to demonstrate understandings of the ways the environment influences people and places.
- Discuss:
  - Does the information relate to the inquiry questions used to shape the investigation?
  - Has sustainability been considered?

**Communicating geographical information**

**Communicate:**

Design a home using influences of the features of the natural environment of their allocated area as a focus. Students’ designs should convey their understandings of the inquiry questions and put forward arguments and opinions about why they have chosen the material, shape and place where they will build.

The design should include a clear explanation and justification of a specific point of view of how the environment has influences their house design.

**Respond:**

Describe and justify a specific point of view when answering peer questions related to the design.
<table>
<thead>
<tr>
<th>Geographical concepts</th>
<th>Geographical inquiry skills</th>
<th>Geographical tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Place</strong>: the significance of places and what they are like e.g. characteristics of places.</td>
<td><strong>Acquiring geographical information</strong></td>
<td><strong>Maps – M</strong></td>
</tr>
<tr>
<td><strong>Space</strong>: the significance of location and spatial distribution, and ways people organise and manage spaces that we live in e.g.; how people organise and manage spaces in their local environment.</td>
<td>• develop geographical questions to investigate and plan an inquiry (ACHGS033, ACHGS040)</td>
<td>• large-scale maps, small-scale maps, topographic maps, flowline maps</td>
</tr>
<tr>
<td><strong>Environment</strong>: the significance of the environment on human life, and the important interrelationships between humans and the environment e.g. how the environment influences people and places; how people influence the environment; the effect of natural disasters on the environment.</td>
<td>• collect and record relevant geographical data and information, using ethical protocols, from primary data and secondary information sources, for example, by observing, by interviewing, conducting surveys, or using maps, visual representations, statistical sources and reports, the media or the internet (ACHGS034, ACHGS041)</td>
<td>• maps to identify location, latitude, direction, distance, map references, spatial distributions and patterns</td>
</tr>
<tr>
<td><strong>Interconnection</strong>: no object of geographical study can be viewed in isolation e.g. how environments influence where people live; ways people influence the characteristics of their environments.</td>
<td><strong>Processing geographical information</strong></td>
<td><strong>Fieldwork – F</strong></td>
</tr>
<tr>
<td><strong>Scale</strong>: the way that geographical phenomena and problems can be examined at different spatial levels e.g. environmental and human characteristics of places on local and regional scales; the effect of events on people and places locally and regionally.</td>
<td>• evaluate sources for their usefulness (ACHGS035, ACHGS042)</td>
<td>• observing, measuring, collecting and recording data, conducting surveys and interviews</td>
</tr>
<tr>
<td><strong>Sustainability</strong>: the capacity of the environment to continue to support our lives and the lives of other living creatures into the future e.g. extent of environmental change; environmental management practices; sustainability initiatives.</td>
<td>• represent data in different forms, for example plans, graphs, tables, sketches and diagrams (ACHGS035, ACHGS042)</td>
<td>• fieldwork instruments such as measuring devices, maps, photographs, compasses, GPS</td>
</tr>
<tr>
<td><strong>Change</strong>: explaining geographical phenomena by investigating how they have developed over time e.g. changes to environmental</td>
<td>• represent different types of geographical information by constructing maps that conform to cartographic conventions using spatial technologies as appropriate (ACHGS036, ACHGS043)</td>
<td><strong>Graphs and statistics – GS</strong></td>
</tr>
<tr>
<td></td>
<td>• interpret geographical data and information, using digital and spatial technologies as appropriate, and identify spatial distributions, patterns and trends, and infer relationships to draw conclusions (ACHGS037, ACHGS044)</td>
<td>• pictographs, data tables, column graphs, line graphs, climate graphs</td>
</tr>
<tr>
<td></td>
<td>• present findings and ideas</td>
<td><strong>Spatial technologies – ST</strong></td>
</tr>
<tr>
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<td></td>
<td>• multiple graphs on a geographical theme</td>
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<td>• statistics to find patterns</td>
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</table>
| | | | photographs, aerial photographs, illustrations, flow diagrams, annotated diagrams, multimedia, web tools.
and human characteristics of places.

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<td>• reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge and describe the expected effects of their proposal on different groups of people (ACHGS039, ACHGS046)</td>
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STAGE 4 GEOGRAPHY: Interconnections

Key inquiry questions

- How are people and places connected to other places?
- What role does technology play in connecting people to people, goods, services and information in other places?
- What are the consequences of a globally connected world for people and places?
- Why are interconnections important for the future of places and environments?

Overview

Students

- focus on the connections people have to places across a range of scales
- examine what shapes people’s perceptions of places and how this influences their connections to places
- explore how transport, information and communication technologies and trade link people to many places
- explain the effects of human activities, such as production, recreation and travel, on places and environments in Australia and across the world
- investigate sustainability initiatives and possible futures for these places.

Outcomes

A student:

- describes processes and influences that form and transform places and environments GE4-2
- explains how interactions and connections between people, places and environments result in change GE4-3
- examines perspectives of people and organisations on a range of geographical issues GE4-4
- discusses management of places and environments for their sustainability GE4-5
- acquires and processes geographical information by selecting and using geographical tools for inquiry GE4-7
- communicates geographical information using a variety of strategies. GE4-8

Syllabus references

Teaching and learning activities

Inquiry questions: For each key inquiry question, students are encouraged to design their own inquiry questions as a subset in order to complete the geographical inquiry process which forms the bases of these teaching and learning sequences.

Assessment: The strategies require students to demonstrate their learning and are all either assessment for learning or assessment as learning activities. Some activities might be selected and included in a school assessment schedule for assessment of learning.

Personal connections

Students:

- investigate the influences on and effects of, people’s travel and recreational, cultural or leisure

Learning sequence 1

Key inquiry question: How are people and places connected to other places?

Pre-task: Create and maintain a journal of personal connections with places, on an international scale. The journal may include:
- world/Australian maps with places visited marked
- audit of pencil case contents and/or bedroom contents, collated
connections with different places for the future, for example:
(ACHGK065, ACHGK069)
• analysis explanation of patterns and trends in people’s travel, recreational, cultural and/or leisure activities
• examination of the impact of people’s travel, recreational, cultural and/or leisure activities on the future of places
• explanation of the impacts of a selected travel, recreational, cultural or leisure activity on a place, implications for the future of that place and strategies to achieve sustainability

and graphed, and where the contents were manufactured
- global cultural influences (audit of music, film, fashion, food, sport cultural interests)
- online connections (social media, gaming).

Present a summary of your results to the class in a digital document, titled ‘My Global Connections’.

Teachers’ note: students are required to complete TASK 1 or TASK 2 but NOT BOTH (One option in TASK 2 includes the proposed assessment task.)

Task 1 Geographical inquiry

Choose one of the following types of connections between you and other people around the world to investigate and report on:
  a) personal connections
  b) technology
  c) trade
  d) production and consumption.

a) Personal connections

Key inquiry questions
• What are the consequences of a globally connected world for people and places?
• Why are interconnections important for the future of places and environments?

Firstly - Investigate the influences on and effects of global personal connections by researching the following and providing the class with a two page summary of your findings:
  - patterns and trends in travel, recreational, cultural and/or leisure activities around the world
  - the impact of people’s travel, recreational, cultural and/or leisure activities on the future of places

Secondly - complete a case study of one place in the world. Show the recreational, cultural and/or leisure activities found there. Describe the impact of personal connections on the place now, and how you predict they will be in future. You are to use the geographical inquiry process and the following key inquiry questions as a starting point:

  • How are people and places connected?
  • What role does technology play in connecting people to people in other places?
  • What are the consequences of a globally connected world for people and places?
  • Why are interconnections important for the future of places and environments?

Report your case study findings in a digital poster. The poster must include an outline of your case study findings, using the geographical inquiry process. Be prepared to explain your poster to your classmates.

b) Technology

Technology

Students:
• investigate the way transportation and information and communication technologies are used to connect people to services, information and people in other places, for example:
  (ACHGK066)
  • explanation of how transport technologies connect people to places
  • examination of how information and
<table>
<thead>
<tr>
<th>communication technologies increases people's connections to services, information and people in other places</th>
</tr>
</thead>
<tbody>
<tr>
<td>• assessment of the impact of increasing global connectivity on people and places</td>
</tr>
</tbody>
</table>

### Key inquiry question

- What role does technology play in connecting people to people, goods, services and information in other places?

Firstly, investigate the influences and effects of technology by researching the following and providing the class with a two page summary of your findings:

- an explanation of how transport technologies connect people to places
- an examination of how information and communication technologies increase people's connections to services, information and people in other places
- an assessment of how increasing global connectivity impacts on people and places.

You are to use the geographical inquiry process and the following key inquiry questions as a starting point:

- How are people and places connected to other places?
- What role does technology play in connecting people to people?
- What are the consequences of a globally connected world for people and places?
- Why are interconnections important for the future of places and environments?

Prepare a digital poster or infographic that outlines your research, using the geographical inquiry process as the basis. Be prepared to explain your poster or infographic to your classmates.

#### Trade

**Students:**

- investigate the ways places and people are interconnected through trade in goods and services across a range of scales, for example: (ACHGK067)
  - identification of trade connections in Australia e.g. local farmers markets, interstate business
  - examination of a country's trade links with other countries e.g. major trade partners, sources of raw materials
  - analysis of spatial patterns of global trade e.g. countries of production and consumption, global shipping and freight routes

#### Production and consumption

**Students:**

- investigate the effects of
the production and consumption of goods on people, places and environments throughout the world, for example: (ACHGK068)

- examination of environmental, social and economic impacts of production and consumption of consumer goods
- assessment of the effect of production or consumption of goods on ONE place or environment
- explanation of responses by governments, groups and individuals to minimise the effects of production and consumption

services in other places?
- What are the consequences of a globally connected world for people and places?
- Why are interconnections important for the future of places and environments?

Secondly, prepare a digital poster or infographic that outlines your research, using the geographical inquiry process as the basis. Be prepared to explain your poster or infographic to your classmates.

d) Production and consumption

Key inquiry questions

- What are the consequences of a globally connected world for people and places?

Firstly - Investigate the influences on and effects of your chosen connection by researching the following and providing the class with a two page summary of your findings:

- an examination of environmental, social and economic impacts of production and consumption of consumer goods
- assessment of the effect of production or consumption of goods on places or environments

Secondly - complete a case study using one place or environment anywhere in the world as a specific example of the recreational, cultural and/or leisure activities found there, and the impact of these connections on that place, now and in the future. You are to use the geographical inquiry process and the following key inquiry questions as a starting point:

- How are people and places connected to other places?
- What role does technology play in connecting people to goods in other places?
- What are the consequences of a globally connected world for people and places?
- Why are interconnections important for the future of places and environments?

Prepare a digital poster or infographic that outlines your research, using the geographical inquiry process as the basis. Be prepared to explain your poster or infographic to your classmates.

Or - Task 2 (includes proposed assessment task)

Key inquiry question:

- How are people and places connected to other places?

a) Personal connections

Key inquiry question: Why are interconnections important for the future of places and environments?

You have been provided with the opportunity to coordinate a major event
that will be of benefit to your local community. This activity must be either cultural, recreational, leisure or travel based. You are required to submit a proposal to your local council to run the event.

Your proposal must include:
1. a description of the event
2. an explanation of the advantages and connections the event will provide for your community
3. an analysis of the immediate and ongoing future (5 – 10 years) impacts of this event, taking into consideration the economic, social and environmental costs
4. essential sustainability considerations in running this event
5. how you anticipate this event could continue in future years if successfully managed.

b) Technology*
(*possible assessment task - see attached outcomes, rubric and marking criteria)

Key inquiry questions:
• How are people and places connected to other places?
• What role does technology play in connecting people to people, goods, services and information in other places?
• What are the consequences of a globally connected world for people and places?
• Why are interconnections important for the future of places and environments?

You are required to interview one senior member of the community about technological change and the effect these changes have had on their life. The information collected in the interview will then need to be analysed and interpreted and used to write a report that focuses on the issue of technological change in people's lives over time and relates to answering the key inquiry questions.

In order to gather this information you will need to obtain specific survey material, such as:

1. the age of the respondent
2. the gender of the respondent
3. where the respondent lives
4. changes witnessed in their lives e.g. regarding transport, communications, agriculture, manufacturing, medicine and health, fashion, sport
5. how many of the identified changes were as a result of technology
6. which changes have improved their lives
7. what order the respondent would rank the changes, from most important to least important
8. what ways technology has improved the lives of the respondent
9. what technological changes the respondent expects will occur in the future

Analyse the responses as a basis for formulating the report.
c) Trade

Key inquiry questions:
• How are people and places connected to other places?
• Why are interconnections important for the future of places and environments?

Complete a case study in which you:
• track a good that is exported from a place overseas to Australia
• identify the trade connections that your chosen good has with Australia
• examine the trade links of your chosen place
• represent visually that country’s trade links with customers globally.

There are a variety of ways this task can be presented: such as – through flow charts, mind maps, and journey maps from source of origin through to the Australian consumer as its final destination.

d) PRODUCTION AND CONSUMPTION

Key inquiry question: What are the consequences of a globally connected world for people and places?

Teachers’ note:
   a) Students need to understand the factors associated with global inequalities after discussion from findings in part a) – education, gender, wealth/poverty, access to clean water, health, food availability, safety, housing, income, employment opportunities and conditions and global citizenship.
   b) Students require an article/source that outlines global concerns of the increasing production and consumption of goods and services globally e.g. http://www.smh.com.au/world/wests-fasion-industry-relies-on-sweat-of-asias-teenagers-20150613-ghjmy7

You are an investigative journalist and have found an article that outlines the concerns of the increasing production and consumption of goods and services globally. You want to respond to the report. This will require some investigative research.

In order to respond you will need:

1. a definition of what the terms production and consumption of goods mean
2. an explanation of the global pattern of production and consumption of goods throughout the world over the past century – the unequal world/haves and have nots/rich/poor.
3. an understanding of why and how this trend eventuated

Your response to the report will not be complete without the inclusion of an analysis of one place that has been affected by the production/consumption of good/s or one good that has been manufactured and traded globally, using some controversial means of production or consumption.
As an investigative journalist your article should include a two page lift out response/broadsheet on this case study. This must include the responses of governments, groups and/or individuals who want to minimise the negative effects of production, consumption or trade in the good you analyse, as well as those that would like production, consumption or trade to continue and the social, economic and political reasons for this.

Resources
http://earthobservatory.nasa.gov/Experiments/Biome/
http://www.unwater.org/fileadmin/user_upload/unwater_new/docs/SDG6-Interlinkages%201and2.pdf

Geographical terminology

globalisation
cultural
technology
production
labour
consumption
trade
inequalities
bilateral
multilateral
interconnections
agricultural
yields
absolute poverty
developed
developing
LED’s
MEDC’s

Geographical concepts

The following geographical concepts have been integrated into the teaching and learning sequence:

Place: the effect of global trade, transport, information and communication technologies on places across the world.

Space: how location influences the ways people organise places.

Geographical inquiry skills

The following geographical inquiry skills have been integrated into the unit:

Acquiring geographical information
- develop geographically significant questions and plan an inquiry, using appropriate geographical methodologies and concepts (ACHGS047, ACHGS055)
- collect, select and record relevant geographical data and

Geographical tools

The following geographical tools have been integrated into the unit:

Maps
- sketch maps, relief maps, political maps, topographic maps, flowline maps, choropleth maps, isoline maps, précis maps, cartograms, synaptic charts

Fieldwork
- observing, measuring, collecting and recording data,
### Environment
- the effect of human activities on natural and human environments.

### Interconnection
- the interconnection with land and community of indigenous peoples.

### Scale
- responses and actions undertaken by governments, organisations and individuals; communities operating at local to global scales.

### Sustainability
- the need to interconnect with the physical and human environments for a long-term future; sustainable management approaches.

### Change
- the effect of coordinated and connected management strategies in reducing the impact of natural and human geographical processes.

<table>
<thead>
<tr>
<th>Processing geographical information</th>
</tr>
</thead>
<tbody>
<tr>
<td>- evaluate information sources for their reliability and usefulness (ACHGS049, ACHGS057)</td>
</tr>
<tr>
<td>- represent the spatial distribution of different types of geographical phenomena by constructing maps at different scales that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS050, ACHGS058)</td>
</tr>
<tr>
<td>- analyse geographical data and other information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to identify and propose explanations for spatial distributions, patterns and trends and infer relationships (ACHGS051, ACHGS059)</td>
</tr>
<tr>
<td>- apply geographical concepts to draw conclusions based on the analysis of the data and information collected (ACHGS052, ACHGS060)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communicating geographical information</th>
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</thead>
<tbody>
<tr>
<td>- present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose; using geographical terminology and digital technologies as appropriate (ACHGS053, ACHGS061)</td>
</tr>
</tbody>
</table>

### Graphs and statistics
- data tables, pie graphs, column graphs, compound column graphs, line graphs, climate graphs, population profiles, multiple tables and graphs presented on a geographical theme, statistics to find patterns and trends

### Spatial technologies
- virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS)

### Visual representations
- photographs, aerial photographs, illustrations, flow charts, annotated diagrams, multimedia, field sketches, cartoons, web tools

### Assessment task and rubric

<table>
<thead>
<tr>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>explains how interactions and connections between people, places and environments result in change</td>
</tr>
</tbody>
</table>
• discusses management of places and environments for their sustainability GE4-5
• acquires and processes geographical information by selecting and using geographical tools for inquiry GE4-7

Task 2 Technology

Key inquiry questions:
• How are people and places connected to other places?
• What role does technology play in connecting people to people, goods, services and information in other places?
• What are the consequences of a globally connected world for people and places?
• Why are interconnections important for the future of places and environments?

You are required to interview one senior member of the community about technological change and the effect these changes have had on their life. The information collected in the interview will then need to be analysed and interpreted and used to write a report that focuses on the issue of technological change in people’s lives over time and relates to answering the key inquiry questions.

In order to gather this information you will need to obtain specific survey material, such as:

1. the age of the respondent
2. the gender of the respondent
3. where the respondent lives
4. changes witnessed in their lives e.g. regarding transport, communications, agriculture, manufacturing, medicine and health, fashion, sport
5. how many of the identified changes were as a result of technology
6. which changes have improved their lives
7. what order the respondent would rank the changes, from most important to least important
8. what ways technology has improved the lives of the respondent
9. what technological changes the respondent expects will occur in the future

Analyse the responses as a basis for formulating the report.

| 9-10 | Provides and describes respondent’s age, gender, where they live and other relevant information
| 9-10 | Describes in detail the many changes the respondent has witnessed in their lifetime
| 9-10 | Succinctly analyses the technological changes related to all of the key inquiry questions
| 9-10 | Lists changes logically ranked, as provided by the respondent
| 9-10 | Outlines what the respondent believes the changes will be in the future

| 7-8 | Provides the respondent’s age, gender, where they live and other relevant information
| 7-8 | Describes the changes respondent have witnessed in their lifetime
| 7-8 | Analyses the technological changes related to most of the key inquiry questions
| 7-8 | Lists changes ranked, as provided by the respondent
| 7-8 | Outlines what the respondent believes the changes will be in the future

| 5-6 | Provides some of the respondent’s demographics such as age, gender, where they live and some other relevant information
| 5-6 | Describes some changes the respondent has witnessed in their lifetime
| 5-6 | Describes the technological changes related to most of the key inquiry questions
| 5-6 | Lists changes, as provided by the respondent
| 5-6 | Provides some thoughts of what the respondent believes the changes will be in the future
| 3-4 | • Provides a few of the respondent’s demographics age, gender, where they live and limited other relevant information  
• Describes one change the respondent has witnessed in their lifetime  
• Identifies the technological changes related to some of the key inquiry questions  
• Ranks a few of changes given by the respondent  
• One example of what the respondent believes the changes will be in the future |
| 1-2 | • Identifies very few of the respondent’s demographics of age, gender, where they live and excludes any other relevant information  
• Provides limited description of one change the respondent has witnessed in their lifetime  
• Identifies few technological changes related to the key inquiry questions  
• Lists few changes, provided by the respondent  
• Provides a basic/limited example of what the respondent believes the changes will be in the future |
# STAGE 4 GEOGRAPHY: Landscapes and landforms

## Key inquiry questions
- Why is there a diversity of landscapes and landforms on Earth?
- What environmental and human processes form and transform landscapes and landforms?
- Why do people value landscapes and landforms?
- To what extent are landscapes and landforms sustainably managed and protected?

## Overview

Students
- explore landscapes and landforms using examples from Australia and throughout the world
- explain processes that create landscapes and shape individual landforms
- describe the value of landscapes and landforms to different people
- examine issues of landscape degradation and ways to manage and protect landscapes and landforms
- investigate a natural hazard associated with landscapes and people’s responses to that hazard.

## Outcomes

A student:
- locates and describes the diverse features and characteristics of a range of places and environments **GE4-1**
- describes processes and influences that form and transform places and environments **GE4-2**
- examines perspectives of people and organisations on a range of geographical issues **GE4-4**
- discusses management of places and environments for their sustainability **GE4-5**
- acquires and processes geographical information by selecting and using geographical tools for inquiry **GE4-7**
- communicates geographical information using a variety of strategies. **GE4-8**

## Syllabus references

**Inquiry questions:** For each key inquiry question, students are encouraged to design their own inquiry questions as a subset in order to complete the geographical inquiry process which forms the bases of these teaching and learning sequences.

**Assessment:** The strategies require students to demonstrate their learning and are all either assessment for learning or assessment as learning activities. Some activities might be selected and included in a school assessment schedule for assessment of learning.

## Landscapes and landforms

**Students:**
- investigate different landscapes and the geomorphic processes that create distinctive landforms, (ACHGK048, ACHGK050)
  - identification of a variety of landscapes and landforms
  - examination of ONE

**Learning sequence 1**

**Key inquiry question:**
- Why is there a diversity of landscapes and landforms on earth?

**Teachers’ note: before this task, you will need to:**
- check that students know the difference between landscapes, landforms, environments and biomes
- develop a class list and summary of different landscapes of the world and what they look like, in general. (Perhaps by way of who has heard of, seen a documentary about, or visited them)
<table>
<thead>
<tr>
<th>landscape and its distinctive landforms</th>
<th>Landscapes and landforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>- explanation of geomorphic processes that create landforms e.g. weathering, erosion, deposition, tectonic activity</td>
<td>a) Landscapes – an area, created by a combination of geological, geomorphological, biological and cultural layers that have evolved over time underwater: continental shelf, trench, mid-oceanic ridge land: urban, rural, mountain, plain, wetland, arid, volcanic, coastal, wetland, riverine, karst</td>
</tr>
<tr>
<td>- value of landscapes and landforms</td>
<td>b) Landforms – individual surface features of the earth identified by their shape such as dunes, plateaus, canyons, beaches, plains, hills, rivers and valleys</td>
</tr>
</tbody>
</table>

### 1.1 Investigating landscapes

**Teachers' note:** 1.1 may focus on Asia, Australia or another region of the world. You will need to supply an appropriate map accordingly, for students to complete the task.

The *Care for the Landscapes and Landforms of our World Party* (CLLWP) is a new political party that values landscapes and landforms around the world, and lobbies for their care for the benefit of future generations. The political party is very vocal about the importance of landscapes and demands the government do more internationally to acknowledge their value, especially for indigenous peoples around the world, as well as providing an educational platform domestically through which students can learn about landscapes and landforms; how they came to be, and what value they hold.

The CLLWP has spoken to you at school about different landscapes and landforms found in the world. Your class has listed a number of different landscapes, about which more information is needed. The editors of your school magazine club have decided to create an article for the next school magazine edition about different landscapes around the world.

Your task is to prepare the article, but first you need to research the topic.

1. Use the internet, texts, atlases and other reference materials to identify one landscape from the class list and locate where this landscape can be found on a blank map of one region of the world (Label the map with significant lines of latitude and longitude to show the reader where the landscape is found). The map should include: legend, north point, title, scale and border
2. Collect several pictures of the chosen landscape and describe the images using geographical terminology
3. Select one of the images and construct a line drawing, labelling the physical landforms and human features of the chosen landscape.
4. Construct a table that lists and describes the physical landforms found in your chosen landscape.

Once you have completed the research - create an article that incorporates the information you have collated (i.e. describes the landscapes and their main characteristics). Remember your audience. Don’t forget to choose a great headline for your article.

### 1.2 What landscape is my local area and what makes my local area distinctive?

Students in your school have read your article and, want, as part of their learning, to promote your local area as a having a distinctive landscape.
to reduce the future impact of similar hazard event including the role of technology in monitoring and predicting geomorphic hazards.

**Changing landscapes**

Students:
- investigate the human causes and effects of landscape degradation, for example: (ACHGK051)
  - description of the impact of a range of human activities on landscapes
  - examination of ONE type of landscape degradation including its spatial distribution, causes and impact.

**Landscape management and protection**

Students:
- investigate ways people, including Aboriginal and Torres Strait Islander Peoples, manage and protect landscapes, for example: (ACHGK052)
  - description of the nature and extent of landscape protection across a range of scales e.g. locally protected places, national parks, world heritage listing
  - examination of management and protection strategies for ONE landscape
  - assessment of the contribution of Aboriginal and Torres Strait Islander Peoples’ knowledge to the use and management of an

You are to undertake the following activities:
- draw a sketch map of your local area
- label the main physical landforms and human features of your local area
- prepare climatic information about your local area in the form a climatic graph and a description of the weather over the last week using an analysis of synoptic charts
- look at a topographic map and a satellite image of your local area and identify, using grid and area references, the major landscapes found in your local area.

Differentiated curriculum:
- prepare five questions to ask ten people in your family, friends and neighbours about the most important physical features, including landforms, of your local area.
- conduct the survey and collate the answers into a half-page summary of what people have said
- compare your answers with your peers and write a one page report on why you think your local area is distinctive.

**Investigating landforms**

1.3 Report on landforms*

(*possible assessment task - see attached outcomes, rubric and marking criteria)

Teachers’ note:

a) *Cross sections and transects, including the use of a topographic map, will need to be taught/reviewed as a whole class before this task is commenced.*

b) An example of a pre-task can be located here [http://www.geogspace.edu.au/verve/_resources/2.3.2.3_1_global_landform_explorer_pdf.pdf](http://www.geogspace.edu.au/verve/_resources/2.3.2.3_1_global_landform_explorer_pdf.pdf)

- In groups of four, select an Australian landform (e.g. Uluru, Kata Tjuta, Wave Rock).
- Two students from each group will investigate the geomorphic origin of the landform while the other two students will research the Dreaming that explains its origin.
- Using all of the research, present the information in a four-page word document, including:
  - the location of the landform
  - a photo of the landform and web links to images of the chosen landform at two relevant sites**
  - a diagram of the feature, with a cross-section of its shape in relation to the surrounding landscape, and one paragraph which describes the diverse characteristics of the features of the surrounding landscape.
  - a transect of the area
  - an account of the geomorphic processes that created the landform
  - a description of the Dreaming that explains the origins of the landform from an Aboriginal and Torres Strait Islander perspective.
Australian landscape or landform

**use the website evaluation provided on the last page of this document.

Learning sequence 2

Value of landscapes and landforms

Landscape management and protection

Key inquiry questions:
- Why do people value landscapes and landforms?
- To what extent are landscapes and landforms sustainably managed and protected?

Teachers’ note: aesthetic values of landscapes and landforms are based on the relationship between the characteristics of the landscapes and landforms, and the observer. They include economic, ecological, spiritual, educational, heritage and cultural values.

Email 1
You have received an email from a student from overseas who has read your article. It reads:

"Why are your landforms so important to you? What are their aesthetic values? What is the cultural, spiritual and economic value of your landforms for Aboriginal and Torres Strait Islander people and non-indigenous people?"

You have decided to broadcast the answer to this email on an International Student Radio Program. In groups, using the cartoon below, and the chosen landform from task 1.2, each student of the group is to choose at least two perspectives, one of which is that of an Aboriginal or Torres Strait Islander (e.g. political, scientist, artist, economist, scientist).

Discuss the statement below and present a five minute radio broadcast on your findings with each perspective included in the broadcast:

“Landforms need special protection”


Your radio broadcast is to include:
- specific examples of the value of the landform to culture, identity and spirituality
- the economic value of the landform locally and nationally
- strategies that identify the management and protection of the landform (who looks after the landform and how?)
Learning sequence 3

Changing landscapes

Key inquiry question:
- What environmental and human processes form and transform landscapes and landforms?

Educational activity

Teachers’ note: Land degradation – the reduction or deterioration in the quality of land. Examples include deforestation, overgrazing, urban sprawl, salinification, pollution, contamination, monoculture.

Your local council wishes to educate their constituents on the causes and effects of landscape degradation. They have enlisted your assistance to develop an educational, yet enjoyable, activity about one type of land degradation.

1. Divide into six groups. Each group will choose/be allocated a different type of land degradation to illustrate the different forms.

2. The task for each group is to design an informative web-based activity on their type of land degradation. The activity needs to include the following information:
   - a working definition of the chosen type of land degradation
   - an explanation of the geomorphic processes relevant to the type of degradation
   - examples of the impact of human activities on the land degradation
   - a brief case study involving the type of land degradation in a specific environment, within Australia
   - the impacts of the type of land degradation on the environment at a variety of scales
   - how individuals, groups, including Aboriginal and Torres Strait Islander Peoples and governments are managing or partially managing the situation to protect the environment.

3. When completed, each group is to try the web-based activities from the other five groups. For each activity the group discusses and completes a half page (maximum) evaluation that includes answers to the following:
   - how user friendly was the site?
   - was the activity interesting? Why or why not?
   - what did the group members learn from the presentation and the activity?

Learning sequence 4

Geomorphic hazards in Australia

Teachers’ suggestion: Use Learning Sequence 6 Natural Hazard from Water in the World and Learning Sequence 4 Geomorphic Hazard from Landscapes and Landforms as an authentic culminating activity, titled “Hazards”, relevant to many of the Stage 4 Geography outcomes.

Teachers’ note:
a) atmospheric hazard – cyclone, flood, drought, fire and tornado
b) biologic hazard – famine, epidemic
c) geomorphic hazard – a hazard that transforms the lithosphere, such as a volcanic eruption, earthquake, tsunami and a mass movement, such as an avalanche.

Email 2: You have received a return email from your overseas student. It reads:

“Sorry that I have not replied to your email for a while but our school was flooded with the start of the monsoon. Our classrooms were under water for three days. We couldn’t come to school and many houses and farms have been destroyed.

People now have to live at the community centre and the government says it will take a while for roads, electricity and normal water supplies to be fully restored throughout the area.

Could you please tell me about the types of hazards experienced in Australia? I am particularly interested in the geomorphic hazards that you know about that are the causes and impacts of many disasters and any strategic plans that you know about that are available as a response to such hazards.

Thank you so much.”

1. Divide into six groups. Each group is allocated a different geomorphic hazard.

2. Plan a geographical inquiry that researches the impact of a geomorphic hazard on Australians. Create a website (including web links, photographs and diagrams) that includes the following information:
   - identification of areas of Australia that are prone to experiencing this type of hazard
   - a description of the processes associated with the hazard (include a variety of charts to demonstrate this)
   - information about a specific event that has occurred within Australia, related to the hazard (when, where, why, how much damage was caused, who was affected?)
   - the consequences of this event (include information about the economic, environmental and social impacts)
   - how people reacted to the event, giving the responses of individuals, groups (e.g. SES, police, charity groups) and government
   - the responsibilities of the different parties with regards to this geomorphic hazard event.

The websites will be shared with the other groups for discussion.

3. Class discussion:

Discuss the statement “The consequences of hazards in Australia for Australians are immense.”
Resources

http://earthobservatory.nasa.gov/Experiments/Biome/
http://www.unwater.org/fileadmin/user_upload/unwater_new/docs/SDG6-Interlinkages%201and2.pdf

Geographical terminology

landscape
landform
weathering
erosion
deposition
tectonic activity
climatic graph
synoptic charts
cross section
transect
environmental processes
human processes
transform
aesthetic
economic
ecological
spiritual
heritage

Geographical concepts

The following geographical concepts have been integrated into the teaching and learning sequence:

Place: the location and distinctiveness of different landscapes and landforms

Space: the spatial distribution of landscapes

Environment: processes that form and transform landscapes and landforms across the world; the aesthetic, cultural, spiritual and economic value of landscapes and landforms to people

Interconnection: how people are affected by landscapes; the interconnection between landscapes and landforms

Geographical inquiry skills

The following geographical inquiry skills have been integrated into the unit:

Acquiring geographical information
- develop geographically significant questions and plan an inquiry, using appropriate geographical methodologies and concepts (ACHGS047, ACHGS055)
- collect, select and record relevant geographical data and information, using ethical protocols, from appropriate primary data and secondary information sources (ACHGS048, ACHGS056)

Processing geographical information
- evaluate information sources for their reliability and usefulness (ACHGS049,

Geographical tools

The following geographical tools have been integrated into the unit:

Maps
- sketch maps, political maps, topographic maps, transects, cross-sections
- maps to identify direction, scale and distance, area and grid references, latitude and longitude, altitude, area, contour lines, gradient, local relief

Fieldwork
- collecting and recording data, developing and conducting surveys and interviews

Graphs and statistics
- data tables, climate graphs,

Spatial technologies
- satellite images (GIS)
| **Scale:** the variations of landforms at a variety of scales; the management of geographical challenges across a range of scales from local to global; responses and actions undertaken by governments, organisations and individuals | **ACHGS057)** • represent data in a range of appropriate forms, with and without the use of digital and spatial technologies (ACHGS049, ACHGS057) • represent the spatial distribution of different types of geographical phenomena by constructing maps at different scales that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS050, ACHGS058) • analyse geographical data and other information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to identify and propose explanations for spatial distributions, patterns and trends and infer relationships (ACHGS051, ACHGS059) • apply geographical concepts to draw conclusions based on the analysis of the data and information collected (ACHGS052, ACHGS060) | **Visual representations** • photographs, aerial photographs |
| **Sustainability:** pressures on the Earth’s landscapes; the need to manage landscapes and landforms for a long-term future; sustainable management approaches of the use of landscapes and landforms | **Communicating geographical information** • present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose; using geographical terminology and digital technologies as appropriate (ACHGS053, ACHGS061) reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations, and predict the expected outcomes of their proposal (ACHGS054, ACHGS062) | |
| **Change:** explaining geographical phenomena by investigating how they have developed over time e.g. landscapes and landforms | | |

**Assessment task and rubric**
### Outcomes

- locates and describes the diverse features and characteristics of a range of places and environments GE4-1
- communicates geographical information using a variety of strategies GE4-8

### Report on landforms

**Teachers’ note:**

- cross-sections and transects, including the use of a topographic map, will need to be taught/reviewed as a whole class before this task is commenced.
- An example of a pre-task can be located here [http://www.geogspace.edu.au/verve/_resources/2.3.2.3.1_global_landform_explorer_pdf.pdf](http://www.geogspace.edu.au/verve/_resources/2.3.2.3.1_global_landform_explorer_pdf.pdf)

- In groups of four, select an Australian landform (e.g. Uluru, Kata Tjuta, Wave Rock).
- Two students from each group will investigate the geomorphic origin of the landform while the other two students will research the Dreaming that explains its origin.
- Using all of the research, present the information in a four-page word document, including:
  - the location of the landform
  - a photo of the landform and web links to images of the chosen landform at two relevant sites**
  - a diagram of the feature, with a cross-section of its shape in relation to the surrounding landscape, and one paragraph which describes the diverse characteristics of the features of the surrounding landscape.
  - a transect of the area
  - an account of the geomorphic processes that created the landform
  - a description of the Dreaming that explains the origins of the landform from an Aboriginal and Torres Strait islander perspective.

**use the Website evaluation provided below.

| 9-10 | Demonstrates an outstanding understanding of one landform in Australia, including its location and physical diversity of the surrounding area
|      | Correctly identifies geomorphic process(es) that are responsible for the formation of the chosen landform
|      | Writes a detailed introduction, displaying an excellent understanding of the origin of the landform from a geomorphic and Indigenous perspective
| 7-8  | Demonstrates a good understanding of one landform in Australia, including its location and physical diversity of the surrounding area
|      | Correctly identifies geomorphic process(es) that are responsible for the formation of the chosen landform
|      | Writes a detailed introduction, displaying a good understanding of the origin of the landform from a geomorphic and Indigenous perspective
| 5-6  | Demonstrates some understanding of one landform in Australia, including its location and physical diversity of the surrounding area
|      | Identifies geomorphic process(es) responsible for the formation of the chosen landform
|      | Writes an introduction, displaying some understanding of the origin of the landform from a geomorphic and Indigenous perspective
|      | Demonstrates a basic understanding of one landform in Australia, including its location and physical diversity of the surrounding area
|      | Identifies some geomorphic process(es) responsible for the formation

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**NSW Education Public Schools**

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<table>
<thead>
<tr>
<th>3-4</th>
<th>• Writes an introduction, displaying a basic understanding of the origin of the landform from a geomorphic and Indigenous perspective</th>
</tr>
</thead>
</table>
| 1-2 | • Demonstrates limited understanding of one landform in Australia, including its location and physical diversity of the surrounding area  
     • Demonstrates limited knowledge of geomorphic process(es) responsible for the formation of the chosen landform  
     • Demonstrates a limited understanding of the origin of the landform from a geomorphic and Indigenous perspective |

Differentiation

Evaluation

Website evaluation: Criteria

<table>
<thead>
<tr>
<th>Title of website:</th>
<th>URL: http://</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did you locate this site you are evaluating?</td>
<td></td>
</tr>
</tbody>
</table>

**DESIGN FEATURES**

| • Is well-organised and is easy to navigate | Y/N |
| • Contains an explanation of what the page is about | Y/N |
| • Contains useful information presented in an accessible format | Y/N |
| • Contains tables and/or graphics which are readable and load easily | Y/N |
| • Is visually interesting with pictures, colour, sound and/or video clips | Y/N |

**EASE OF USE**

| • Loads quickly and has an easily understood front page | |
| • Information can be easily accessed within the site and there are links back to the original page | |
| • Offers search engines and/or help options (such as a site map) to make for ease of navigation through the site | |
| • Distinguishes clearly between internal and external links | |

**CONTENT**

<p>| • Has a suitable title which explains what the site is all about | |
| • Has meaningful content which is useful for the intended purpose | |
| • Information is easy to read | |</p>
<table>
<thead>
<tr>
<th>Content is grammatically correct and spelling is correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content is current (up to date)</td>
</tr>
<tr>
<td>Has links to external sites which are relevant and useful</td>
</tr>
<tr>
<td>Includes pictures which contribute to the overall appearance and which are relevant and usable</td>
</tr>
</tbody>
</table>

**CREDIBILITY**

<table>
<thead>
<tr>
<th>Includes information about the author (e.g. contact details)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes a recent date when the site/page was last updated</td>
</tr>
<tr>
<td>Includes references or links to sources used in developing the site</td>
</tr>
<tr>
<td>Does not inappropriately request fees or names and addresses</td>
</tr>
<tr>
<td>Does not request that you buy something</td>
</tr>
<tr>
<td>Does not include advertising which takes a long time to load</td>
</tr>
</tbody>
</table>

**ADDITIONAL COMMENTS**

This evaluation is based one retrieved from: http://www.sfc.wcape.school.za/Webeval.sfcj.htm
STAGE 4 GEOGRAPHY: Place and liveability

Key inquiry questions
- Why do people’s perceptions of the liveability of places vary?
- What effect does environmental quality and access to services have on people’s wellbeing?
- How can strong community identity and social connectedness enhance the liveability of places?
- What approaches can be used to improve the liveability of places?

Overview
Students
- discuss factors that influence people’s perceptions of the liveability of places
- investigate features and characteristics of places across a range of scales that support and enhance people’s wellbeing such as community identity, environmental quality and access to services and facilities
- assess the liveability of places and propose strategies to enhance the liveability of a place in Australia.

Outcomes
A student:
- locates and describes the diverse features and characteristics of a range of places and environments GE4-1
- describes processes and influences that form and transform places and environments GE4-2
- explains how interactions and connections between people, places and environments result in change GE4-3
- examines perspectives of people and organisations on a range of geographical issues GE4-4
- explains differences in human wellbeing GE4-6
- acquires and processes geographical information by selecting and using geographical tools for inquiry GE4-7
- communicates geographical information using a variety of strategies. GE4-8

Syllabus references

Teaching and learning activities
Inquiry questions: For each key inquiry question, students are encouraged to design their own inquiry questions as a subset in order to complete the geographical inquiry process which forms the bases of these teaching and learning sequences.

Assessment: The strategies require students to demonstrate their learning and are all either assessment for learning or assessment as learning activities. Some activities might be selected and included in a school assessment schedule for assessment of learning.

Influences and perceptions
Students:
- investigate factors influencing perceptions of the liveability of places, for example: (ACHGK043, ACHGK046, ACHGK065)
- examination of

Influences and perceptions
Learning sequence 1
1.1 Living in places
Key inquiry question:
- Why do people’s perceptions of the liveability of places vary?
Access to services and facilities

Students:
- investigate the influence of accessibility to services and facilities on the liveability of places, for example: (ACHGK044)
- identification of ways used to measure, assess or rank the liveability of places e.g. surveys, liveability index
- development of personal liveability criteria and application to a local place

Environmental quality

Students:
- investigate the impact of environmental quality on the liveability of places, for example: (ACHGK045)
- discussion of factors that reduce environmental quality e.g. natural hazards, conflict, population pressures, land degradation

Discussion 1 – “Why do you/would you like to live in a certain place?”
Discuss the factors that determine the liveability of a place, in your opinion.

Teachers’ note: You may wish to display pictures of places around the world to stimulate discussion.

After the discussion, collate the features students collectively want in a place they would like to live, or have lived, or live, and get students to think about the basics of their personal liveability criteria.

Environmental quality

Discussion 2a) – “What would make you not want to live in a place?”
Discuss this statement and collate the features students do not want, collectively, in the places they live. Particularly focus on a discussion of factors that reduce environmental quality.

For example: noise, pollution, lots of traffic, crime, danger, drug dealers, emptiness, isolation, extreme heat or cold, populations pressures, land degradation.

Teachers’ note: answers will depend on students’ location and experiences, but try to encourage discussion across a range of scales.

Discussion 2b) - “But people do live in a place with these characteristics – Why?”
Discuss and conclude.

Teachers’ note: relate to the collated liveability features from Discussion 1.

Discussion 3 - “People live in dangerous and extreme places. Why?”
Discuss and conclude.

Teachers’ note: relate to the collated liveability features from Discussion 1. For example: poverty restricts people’s ability to move (economic factors), how liveability changes over time, and how technology can overcome remoteness and improve social connectedness.

Key inquiry question: What effect do environmental quality and access to services have on people’s wellbeing?

Access to services and facilities

Discussion 4* – “There are many variations in access to services and facilities between urban, rural and remote places. Does this impact significantly on peoples’ reasons for living in a place?"
**Community**

**Students:**
- investigate the influence of social connectedness and community identity on the liveability of places, for example: (ACHGK046)
  - identification of the characteristics of places that influence community identity e.g. culture, environment, public events, religious beliefs
  - discussion of factors that enhance social connectedness e.g. transport, technology, open spaces, meeting places, employment

**Enhancing liveability**

**Students:**
- investigate strategies used to enhance the liveability of places using examples from different countries, for example: (ACHGK047)
  - identification of the characteristics of places considered highly liveable
  - examination of a range of strategies used to enhance liveability
  - assessment of the role of governments, non-government organisations, communities and individuals in enhancing liveability
  - proposal of strategies to improve the liveability of a place in Australia.

**Discussion and conclude.**

*Teachers’ note: relate to the collated liveability features from Discussion 1.*

**Assessment 1:**

**Outcome**
- explains differences in human wellbeing GE4-6

An oral assessment task should be developed that works towards the achievement of outcome GE4-6, using Discussion 4 as the basis.

### 1.2 Photo interpretation/ranking

*Teachers’ note: choose a variety of images of places (maximum of 15) that are lived in from around the world. Choose some photographs that reflect climatic conditions (e.g. monsoon, snow, and desert) as well as places that have population disparities, or those which focus on education, or leisure or other service industries.*

You are to rank the variety of images, where you would like to live – from most to least, using the students newly developed personal liveability criteria.

Compare your ranking and the related criteria with that of your peers.

**Discussion 6: Are there any features that cannot be shown in an image that may be an important influence on liveability?**

After discussion with your peers, amend and adjust your personal liveability criteria, which could then be applied to determine what places you would most like to live. Consider grouping your criteria into common characteristics such as tangible and intangible characteristics.

Discuss the differences in your personal liveability criteria with your peers.

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http://davidbarrie.typepad.com/david_barrie/design/
Compare your personal liveability criteria base with the images above.

Re-evaluate your personal liveability criteria using these images.

Analyse what you have learned from all of the discussions and activities and answer the following question:

*If you could live anywhere in the world, where would you like to live? Why?*

In your analysis, which should be approximately 600 words, include reasoning associated with the importance of perceptions, access to services and facilities, environmental quality and social connectedness, as well as your final personal liveability criteria.

### 1.3 Measuring liveability

*Teachers’ note: students are to choose one of the 140 cities that were involved in the study by The Economist for the “Global Liveability Ranking and Report” located at https://www.eiu.com/public/topical_report.aspx?campaignid=Liveability2014*

You have been asked by your chosen city council (using the criteria identified by The Economist Intelligence Unit) to assess the liveability of the city. This assessment will be presented at an upcoming forum that compares the liveability of a number of cities.

Compare The Economists’ liveability results of your chosen city with another measurement factor such as Mercer’s Quality of Living Ranking or Monocle’s Quality of Life Survey. How are the studies similar and how are they different?

You and your chosen city’s council representative. You have been
invited to attend a forum and will be required to participate in a round-table discussion with other city council representatives. At the forum, present a summary of how liveable your city is and the reasons for your evaluation based on a collective study of the measurement factors.

Learning sequence 2

Community

Key inquiry question:

- How can strong community identity and social connectedness enhance the liveability of places?

2.1 Wow, what a city

At the end of the council forum you have decided to promote a city that incorporates social cohesion and strong social connectedness. Decide on what that city is, according to your own self-developed criteria from Learning Sequence 1 (it could be the same place, as long as it is a city), and the reasons for your choice. Research the positive elements of your chosen city in terms of liveability and the social factors that you consider give this city a strong tick of approval. Prepare a one-minute advertising campaign suitable for social media that will attract people to live in this city. Ensure that your media campaign has up to date statistics and images, and that the factors contributing to your decision have been included.

Enhancing liveability

2.2 Improving my place*

(*possible assessment task - see outcomes, rubric and marking criteria at the end of this document)

Key inquiry question:

- What approaches can be used to improve the liveability of places?

You have decided that the place, where you are living now, could be improved to more closely align to your personal liveability criteria. One of the areas for improvement you have identified is a local space for development or redevelopment e.g. a park, community hall, recreation area, common area.

Your job is to come up with a design for this space that promotes and incorporates the needs of your community, together with the 10 One Planet principles http://www.bioregional.com/oneplanetliving/.

Your proposal must include:

- a map of the area at a variety of scales - incorporating geographical conventions such as BOLTSS – border, orientation, legend, title, scale and source.
- at least one major change that will promote the social connectedness of this space, such as the inclusion of light transport or cultural days
- a visual representation demonstrating and explaining the changes you plan to make
- an explanation of how the changes you propose relate to your personal livability criteria
a table which illustrates:

- the roles of government and non-government organisations, communities and individuals in enhancing the livability of your place
- one strategy from each of the stakeholders above, which would support the implementation of your proposal. You may even give examples of projects that the stakeholders have already put in place, which would support your proposal.

Resources

http://earthobservatory.nasa.gov/Experiments/Biome/
http://www.unwater.org/fileadmin/user_upload/unwater_new/docs/SDG6-Interlinkages%201and2.pdf
http://www.bioregional.com/oneplanetliving/

Geographical terminology

The following geographical concepts have been integrated into the teaching and learning sequence:

Place: factors influencing people’s perceptions of places; the special significance place has to some people

Space: how location influences the ways people organise places.

Environment: the reasons why people live where they do

Interconnection: how people are affected by the environment with regard to the liveability of places

Scale: the management of geographical challenges

The following geographical inquiry skills have been integrated into the unit:

Acquiring geographical information
  • develop geographically significant questions and plan an inquiry, using appropriate geographical methodologies and concepts (ACHGS047, ACHGS055)
  • collect, select and record relevant geographical data and information, using ethical protocols, from secondary information sources (ACHGS048, ACHGS056)

Processing geographical information
  • represent data in a range of appropriate forms, with and without the use of digital and spatial technologies

The following geographical tools have been integrated into the unit:

Maps
  • sketch maps, relief maps, political maps, topographic maps, flowline maps, choropleth maps, isoline maps, précis maps, cartograms, synoptic charts
  • maps to identify direction, scale and distance, area and grid references, latitude and longitude, altitude, area, contour lines, gradient, local relief

Fieldwork
  • observing, measuring, collecting and recording data, developing and conducting surveys and interviews
  • fieldwork instruments such as weather instruments, vegetation identification charts, compasses, GPS, GIS
across a range of scales from local to global; responses and actions undertaken by governments, organisations and individuals; communities operating at local to global scales.

**Sustainability**: pressures on the Earth’s water resources and landscapes; the need to manage environments for a long-term future; sustainable management approaches.

**Change**: changes to places over time

- (ACHGS049, ACHGS057) represent the spatial distribution of different types of geographical phenomena by constructing maps at different scales that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS050, ACHGS058)
- analyse geographical data and other information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to identify and propose explanations for spatial distributions, patterns and trends and infer relationships (ACHGS051, ACHGS059)
- apply geographical concepts to draw conclusions based on the analysis of the data and information collected (ACHGS052, ACHGS060)

**Communicating geographical information**
- present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose; using geographical terminology and digital technologies as appropriate (ACHGS053, ACHGS061)
- reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations (ACHGS054, ACHGS062)

**Graphs and statistics – GS**
- data tables, pie graphs, column graphs, compound column graphs, line graphs, climate graphs, population profiles, multiple tables and graphs presented on a geographical theme, statistics to find patterns and trends

**Spatial technologies – ST**
- virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS)

**Visual representations – VR**
- photographs, aerial photographs, illustrations, flow charts, annotated diagrams, multimedia, field
- sketches, cartoons, web tools

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### Assessment task and rubric

**Outcomes**

- explains how interactions and connections between people, places and environments result in change GE4-3
Improving my place

You have decided that the place where you are living now could be improved to more closely align to your personal livability criteria. One of the areas for improvement you have identified is a local space for development or redevelopment e.g. a park, community hall, recreation area, common area.

Your job is to come up with a design for this space that promotes and incorporates the needs of your community, together with the 10 One Planet principles http://www.bioregional.com/oneplanetliving/.

Your proposal must include:
- a map of the area at a variety of scales - incorporating geographical conventions such as BOLTSS – border, orientation, legend, title, scale and source.
- at least one major change that will promote the social connectedness of this space, such as the inclusion of light transport or cultural days
- a visual representation demonstrating and explaining the changes you plan to make
- an explanation of how the changes you propose relate to your personal livability criteria
- a table which illustrates:
  - the roles of government and non-government organisations, communities and individuals in enhancing the livability of your place
  - one strategy from each of the stakeholders above, which would support the implementation of your proposal. You may even give examples of projects that the stakeholders have already put in place, which would support your proposal.

| 9-10 | Provides a variety of different scales on multiple maps and correctly incorporates geographic conventions. |
|      | Correctly applies BOLTSS to all maps. |
|      | Includes clear and concise visual representations of proposed changes. |
|      | Includes a wide variety of visual resources as evidence. |
|      | Clearly defines a strategy to enhance the social connectedness of the space. |
|      | Outlines, in detail, the strategy using multiple resources. |

| 7-8  | Provides different scales on multiple maps and correctly incorporates geographic conventions. |
|      | Correctly applies BOLTSS to most maps. |
|      | Includes clear visual representations of proposed changes. |
|      | Includes numerous visual resources as evidence. |
|      | Clearly describes a strategy to enhance the social connectedness of the space. |
|      | Outlines the strategy using multiple resources. |

| 5-6  | Provides some different scales on maps and correctly incorporates some geographic conventions. |
|      | Correctly applies BOLTSS to some maps. |
|      | Includes visual representations of proposed changes. |
|      | Includes some visual resources as evidence. |
|      | Describes a strategy to enhance the social connectedness of the space. |
|      | Outlines the strategy. |

<p>| 3-4  | Provides basic scales on maps and incorporates some geographic conventions. |
|      | Correctly applies some BOLTSS to some maps. |
|      | Includes some visual representations of proposed changes. |
|      | Includes some visual resources as evidence. |</p>
<table>
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<th>1-2</th>
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| • Describes a basic strategy to enhance the social connectedness of the space.  
• Provides some basic details of the strategy. |
| • Provides limited scales on maps and incorporates few geographic conventions.  
• Applies 1 or 2 parts of BOLTSS to some maps.  
• Includes a limited visual representation of proposed changes.  
• Includes limited visual resources as evidence.  
• Describes, in limited detail, a strategy to enhance the social connectedness of the space. |

**Differentiation**

**Evaluation**
# STAGE 4 GEOGRAPHY: Water in the world

## Key inquiry questions
- Why does the spatial distribution of water resources vary globally and within countries?
- How do natural and human processes influence the distribution and availability of water as a resource?
- What effect does the uneven distribution of water resources have on people, places and environments?
- What approaches can be used to sustainably manage water resources and reduce water scarcity?

## Overview

**Students:**
- examine water as a resource and the factors influencing water flows and availability of water resources in different places
- investigate the nature of water scarcity and assess ways of overcoming it
- discuss variations in people’s perceptions about the value of water and the need for sustainable water management
- investigate processes that continue to shape the environment including an atmospheric or hydrologic hazard.

## Outcomes

**A student:**
- locates and describes the diverse features and characteristics of a range of places and environments GE4-1
- describes processes and influences that form and transform places and environments GE4-2
- explains how interactions and connections between people, places and environments result in change GE4-3
- discusses management of places and environments for their sustainability GE4-5
- acquires and processes geographical information by selecting and using geographical tools for inquiry GE4-7
- communicates geographical information using a variety of strategies. GE4-8

## Syllabus references

### Teaching and learning activities

*Inquiry questions:* For each key inquiry question, students are encouraged to design their own inquiry questions as a subset in order to complete the geographical inquiry process which forms the bases of these teaching and learning sequences.

*Assessment:* The strategies require students to demonstrate their learning and are all either assessment for learning or assessment as learning activities. Some activities might be selected and included in a school assessment schedule for assessment of learning.

### The water cycle

**Students:**
- investigate how the operation of the water cycle connects people and places.

**Learning sequence 1**

*Teachers’ note:* The concept of water as a finite resource must be introduced prior to these learning sequences.
Audio Rap*  
*proposed assessment task
Teacher’s note: Search for the Water Cycle Rap on YouTube, and play it for students to listen to only. (Do not show visuals.)

1. Whilst listening to the audio source, students make notes on key points and processes.  
2. Students create a visualisation (diagram) of the water cycle  
3. Students describe what has been drawn.

Introduce *The Water Cycle* and explain how it connects people and places. See:
http://pmm.nasa.gov/education/lesson-plans/exploring-water-cycle  
http://www.learningtogive.org/lessons/unit370/lesson2.html

### Learning sequence 2

#### Water resources

**Key inquiry question:**
- Why does the spatial distribution of water resources vary globally and within countries?

#### Water in the world conference

You are going to attend a *Water In The World* conference with your colleagues. You and your colleagues are the keynote speakers at this conference. This conference is to be podcasted globally.

Your task is to produce a two-three minute speech on global water resources, using the information from this infographic:


As a minimum your speech needs to include information about:
- different forms of water - solid, liquid, gas
- global distribution - who does and doesn’t have access to water and why (physical and human reasons) Use explicit examples to illustrate your reasons
- the number of people that use water as a resource, at a variety of scales
- the per capita usage of water
- what water is used for – e.g. industry/agriculture, and other classification examples from a variety of scales
- how water usage has changed over time.

### Learning sequence 3

#### Australia’s water resources

Your keynote address at the *Water in the World* conference has been very successful. You have been asked to create a short illustrative presentation that summarises the keynote speech, but with an Australian context. The presentation should be predominantly made up of graphs, maps and tables that demonstrate the spatial variation of Australia’s water resources. Your presentation should include five slides or equivalent, with a maximum of ten lines of notes per slide to guide the reader as to what your graphs, maps and tables represent.
• investigate the nature of water scarcity and ways of overcoming it, for example: (ACHGK040)
  - description of the nature, extent and causes of water scarcity in different countries
  - assessment of strategies used to overcome water scarcity and the role of governments, nongovernment organisations, individuals and communities in sustainable water management
  - proposal of individual actions contributing to water management

Key ideas include:
  • different types of water resources found in Australia
  • quantity of water resources located in Australia
  • where water is located in Australia
  • comparison of Australia’s water supply with that of other continents of the world.

Learning sequence 4

4.1 Water audit - fieldwork

Teachers’ note: you will need to hand out the Process for geographical inquiry. This process is central to Geography K-10.

Use the Process for geographical inquiry to determine how sustainable water usage at your school and/or home is currently, and then develop and outline strategies of management for more sustainable water use. If there are already sustainable practices in place, analyse how well they are currently working and suggest strategies that could be implemented that would improve or expand upon them.

Your response needs to be tabled electronically

Ensure that you first determine the geographical questions that you need to answer before embarking on your fieldwork inquiry. You can use these websites as a starting point:


http://www.coolaustralia.org/activity/school-water-audit-56/

You may consider dividing up the strategies of water management you develop into biospheric, hydrospheric, lithospheric and atmospheric strategies. Your peers may discuss how achievable these strategies are.

4.2: Water scarcity and water management

Key inquiry questions: How do natural and human processes influence the distribution and availability of water as a resource?

What effect does the uneven distribution of water resources have on people, places and environments?

The United Nations recognises water scarcity as a global crisis. Your school librarian has asked you to review two websites dealing with this crisis and answer a number of related questions. One of the two websites must be the United Nations Global Issues: Water website (http://www.un.org/en/globalissues/water/) and the other website should be an established non-government organisation that aims to improve access to fresh water for those that don’t currently have it.

Use a website review template such as

http://www.schrockguide.net/uploads/3/9/2/2/392267/5ws.pdf or the provided at the end of this document, to help you review each website, and then answer these more specific questions:

a) What is the nature of water scarcity in the world (define the term;
<table>
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<th>Learning sequence 5</th>
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<tbody>
<tr>
<td><strong>5.1 The value of water</strong></td>
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<td><em>Teachers’ note: there is an excellent unit of work and professional learning activity for teachers from the NSW Aboriginal Educational Consultative Group (NSW AECG). The unit of work has been developed using the Aboriginal and Torres Strait Islander histories and cultures Learning across the Curriculum Content perspective on water management in Australia. Please contact the NSW AECG for further information about how to access this course and the related materials.</em></td>
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<tr>
<td><strong>Cultural comparison</strong></td>
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<tr>
<td>Write a report that compares and contrasts the value of water for <em>three cultural groups</em>. One cultural group must be an Aboriginal and Torres Strait Islander group, another from the Asia region, and a third cultural group is completely of your choice. Your report should include:</td>
<td></td>
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<tr>
<td>1. a map showing where each cultural group is located</td>
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<tr>
<td>2. a ten-line summary of each cultural groups’ characteristics, including geographical</td>
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<tr>
<td>3. an online video that demonstrates the value of water for this group</td>
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<tr>
<td>4. two websites that are reputable and contain valuable information that you have used in your report.</td>
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<tr>
<td>5. an answer to the inquiry question: <em>How is water key to the cultural groups’ lives?</em> including a paragraph on the following</td>
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- explanation of the spatial distribution, cause and impact of the disaster
- examination of responses by individuals, groups and government to the impact of the disaster
- prediction of the impact of climate change on the occurrence, frequency and extent of this type of hazard
- discussion of management strategies to reduce the future impact of similar hazard events.

what are the causes, extent and effect of water scarcity)?

b) What is, or should be, the role of government, non-government organisations, individuals and communities in alleviating this issue?

c) What are two examples of strategies that you consider to be innovative, that are being used in the world to help improve water management? (Briefly describe them including details such as what where and how.)

Upload your website reviews and responses to the three related questions.

**Key inquiry question:**
- What approaches can be used to sustainably manage water resources and reduce water scarcity?

4.3 “Water for the world” day
The school is going to hold a ‘Water for the world day’ and wants selected students to develop practical activities that their peers can participate in on the day. The activities should educate participants about the scarcity of water in the world and how it is currently mismanaged AND inform them of a strategy involving them - that if implemented could assist others to have access to fresh (safe?) water. You have been selected and need to provide the librarian with a one-page summary of what you plan to do. Be innovative; think about what you aim to achieve and ensure your strategy is practical and your activity/activities educational and stimulating for your peers.

You may use technology as a medium for demonstration, or other practical ways.

Learning sequence 5

5.1 The value of water

*Teachers’ note: there is an excellent unit of work and professional learning activity for teachers from the NSW Aboriginal Educational Consultative Group (NSW AECG). The unit of work has been developed using the Aboriginal and Torres Strait Islander histories and cultures Learning across the Curriculum Content perspective on water management in Australia. Please contact the NSW AECG for further information about how to access this course and the related materials.*

**Cultural comparison**
Write a report that compares and contrasts the value of water for *three cultural groups*. One cultural group must be an Aboriginal and Torres Strait Islander group, another from the Asia region, and a third cultural group is completely of your choice. Your report should include:

1. a map showing where each cultural group is located
2. a ten-line summary of each cultural groups’ characteristics, including geographical
3. an online video that demonstrates the value of water for this group
4. two websites that are reputable and contain valuable information that you have used in your report.
5. an answer to the inquiry question: *How is water key to the cultural groups’ lives?* including a paragraph on the following
inq
quiry sub-questions:

a. What is the economic value of water for each cultural group?
b. What is the cultural and spiritual value of water for each cultural group?
c. How else is water used by these cultural groups?

Examples of water related culture include Brewarrina Fish Traps, Moken (Sea Gypsies), Piraha people of the Amazon.

Finally, include a written response of approximately 300 words in which you identify “The similarities and differences in the ways each of cultural groups values water.”

5.2 Water as a global issue

Teachers’ note: This sequence is a Civics and Citizenship response to the focus area. It works towards the achievement of a number of content area dot points in the syllabus and is a summary of the roles and responsibilities that cities have and can take about water management and relieving water scarcity.

Fieldwork and response

You are a concerned global citizen. The world is not paying attention to the value of water. You have decided to investigate and collect information about this issue as it affects two locations in the country or city in which you reside and to write a detailed email (500-1000 words) to your appropriate government representative outlining your concerns.

1. You will start your process of investigation by developing a plan for geographical inquiry in which you outline the following:
   ▪ four broad focus questions
   ▪ the types of primary and secondary data required to answer each broad focus question
   ▪ how you are going to collect the data (graphs, tables, maps, etc.)
   ▪ how you are going to process and analyse the data collected.

Note 1: Make sure that your focus questions will cover:
   ▪ an overview of the value of water through use (e.g. agricultural, commercial, industrial, recreational and domestic uses)
   ▪ current individual, group and government perceptions of the use of water (e.g. economic versus aesthetic uses). (Surveys may be an appropriate tool.)

Note 2: Your information should include:
   ▪ a photograph of each of the locations identified
   ▪ the bearings of the locations from your school
   ▪ the population density of the areas
   ▪ a map of the areas
   ▪ climatic graphs, to demonstrate precipitation amounts, where appropriate

When you have finalised your investigation, compose the detailed email suitable for communicating your findings and concerns to your appropriate government representative.
Learning sequence 6

Natural hazard

Teachers’ suggestion: Use Learning Sequence 6 Natural Hazard from Water in the World and Learning Sequence 4 Geomorphic Hazard from Landscapes and Landforms as an authentic culminating activity, titled “Hazards”, relevant to many of the Stage 4 Geography outcomes.

Divide into groups of four. Each group is allocated a different natural hazard from the following: droughts, floods, storms, or tropical cyclones.

Your group task is to create a word document (up to 12 pages) that includes the following information about your allocated natural hazard:

- identification of areas of the world, and Australia, prone to experiencing this type of natural hazard
- a description of the main geographical processes associated with the natural hazard (you must include a variety of charts to illustrate the description)
- information about a specific event outside of Australia where this natural hazard occurred (when, where, how much damage was caused)
- information about a specific event within Australia where this natural hazard occurred (when, where, how much damage was caused)
- satellite images and interpretation
- a summary of the consequences of each of these specific events (i.e. information about the economic, environmental and social impacts)
- information about how people have reacted to the event, giving sample responses from individuals, groups (e.g. SES, police, charity groups) and government
- general information about the actions that different responsible parties have taken to implement management strategies with regards to this natural hazard, both within and beyond Australia.

Include web links, photographs, diagrams and newspaper headlines and articles to enhance your information.

Your document will be shared with the other groups and you and your group will be required to answer questions related to your research.

Resources

http://www.coolaustralia.org/
http://earthobservatory.nasa.gov/Experiments/Biome/
http://www.unwater.org/fileadmin/user_upload/unwater_new/docs/SDG6-Interlinkages%201and2.pdf
SES
Sydney Water Authority

Geographical terminology

water management
water scarcity
water cycle
evaporation
transevaporation
condensation
precipitation
finite
run-off
water table
infiltration
groundwater
biosphere
atmosphere
hydrosphere
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<thead>
<tr>
<th>Geographical concepts</th>
<th>Geographical inquiry skills</th>
<th>Geographical tools</th>
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<tbody>
<tr>
<td><strong>The following geographical concepts</strong> have been integrated into the teaching and learning sequence:</td>
<td><strong>The following geographical inquiry skills</strong> have been integrated into the unit:</td>
<td><strong>The following geographical tools</strong> have been integrated into the unit:</td>
</tr>
<tr>
<td><strong>Place</strong>: the quality and quantity of water varies between places</td>
<td><strong>Acquiring geographical information</strong></td>
<td><strong>Maps</strong></td>
</tr>
<tr>
<td><strong>Space</strong>: the spatial distribution of global water resources</td>
<td>• develop geographically significant questions and plan an inquiry, using appropriate geographical methodologies and concepts (ACHGS047, ACHGS055)</td>
<td>• political maps</td>
</tr>
<tr>
<td><strong>Environment</strong>: the effect of human activities on natural and human environments, including the overuse of water, for example</td>
<td>• collect, select and record relevant geographical data and information, using ethical protocols, from appropriate primary data and secondary information sources (ACHGS048, ACHGS056)</td>
<td>• maps to identify direction, scale and distance, area and grid references, latitude and longitude, altitude, area, contour lines, gradient, local relief</td>
</tr>
<tr>
<td><strong>Interconnection</strong>: how people affect the environment such as how their use of water impacts on its quality and availability as a resource.</td>
<td><strong>Processing geographical information</strong></td>
<td><strong>Graphs and statistics</strong></td>
</tr>
<tr>
<td></td>
<td>• evaluate information sources</td>
<td>• data tables, pie graphs, column graphs, line graphs, climate graphs, multiple tables and graphs presented on a geographical theme, statistics to find patterns and trends</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Spatial technologies</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• satellite images, global positioning systems (GPS), geographic information systems</td>
</tr>
</tbody>
</table>
**Scale:** the human water footprint, and its management across a range of scales from local to global; responses and actions undertaken by governments, organisations and individuals

**Sustainability:** pressures on the Earth’s water resources; the need to manage environments for a long-term future; sustainable management approaches.

**Change:** changes to water as a resource over time through natural and human geographical processes and events; the effect of management strategies in reducing its impact.

for their reliability and usefulness (ACHGS049, ACHGS057)

- represent data in a range of appropriate forms, with and without the use of digital and spatial technologies (ACHGS049, ACHGS057)
- represent the spatial distribution of different types of geographical phenomena by constructing maps at different scales that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS050, ACHGS058)
- analyse geographical data and other information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to identify and propose explanations for spatial distributions, patterns and trends and infer relationships (ACHGS051, ACHGS059)
- apply geographical concepts to draw conclusions based on the analysis of the data and information collected (ACHGS052, ACHGS060)

**Visual representations**

- photographs, aerial photographs, illustrations, flow charts, annotated diagrams, multimedia
- web tools

**Communicating geographical information**

- present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose; using geographical terminology and digital technologies as appropriate (ACHGS053, ACHGS061)

---

**Assessment task and rubric**

**Outcomes:**

- describes processes and influences that form and transform places and environments GE4-2
- acquires and processes geographical information by selecting and using geographical tools for inquiry GE4-7
- communicates geographical information using a variety of strategies. GE4-8
**Teachers’ note:** The concept of water as a finite resource must be introduced prior to these learning sequences.

### The Water Cycle

**Audio Rap**  
Teacher’s note: Search for the Water Cycle Rap on YouTube, and play it for students to listen to only. (Do not show visuals.)

**Students:**
1. Whilst listening to the audio source, make notes on key points and processes.
2. Create a visualisation (diagram) of the water cycle
3. Describe what has been drawn.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| 9-10  | • Summarises all of the information described in the infographic succinctly.  
       | • Summarises global distribution of water correctly.  
       | • Clearly defines and discusses in detail one specific water resource.  
       | • Demonstrates excellent understanding of how the resource has changed over time, providing numerous resources.  
       | • Provides a comprehensive detailed visualisation of the water cycle. |
| 7-8   | • Summarises most of the information described in the infographic succinctly.  
       | • Summarises global distribution of water.  
       | • Clearly defines and discusses one specific water resource.  
       | • Demonstrates good understanding of how the resource has changed over time, providing resources.  
       | • Provides a detailed visualisation of the water cycle. |
| 5-6   | • Summarises some of the information described in the infographic.  
       | • Summarises some elements of global distribution of water.  
       | • Includes some information about one specific water resource.  
       | • Demonstrates some understanding of how the resource has changed over time.  
       | • Provides some detail in the visualisation of the water cycle. |
| 3-4   | • Includes some of the information described in the infographic.  
       | • Includes basic information about the global distribution of water.  
       | • Includes basic information about one specific water resource.  
       | • Demonstrates a basic understanding of how the resource has changed over time.  
       | • Provides basic detail in the visualisation of the water cycle. |
| 1-2   | • Includes limited information described in the infographic.  
       | • Includes limited information about the global distribution of water.  
       | • Includes limited information about one specific water resource.  
       | • Demonstrates a limited understanding of how the resource has changed over time.  
       | • Provides limited detail in the visualisation of the water cycle. |

### Differentiation
### Website evaluation: Criteria

<table>
<thead>
<tr>
<th>Title of website:</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL: http://</td>
</tr>
<tr>
<td>How did you locate this site you are evaluating?</td>
</tr>
</tbody>
</table>

#### DESIGN FEATURES

- Is well-organised and is easy to navigate
- Contains an explanation of what the page is about
- Contains useful information presented in an accessible format
- Contains tables and/or graphics which are readable and load easily
- Is visually interesting with pictures, colour, sound and/or video clips

#### EASE OF USE

- Loads quickly and has an easily understood front page
- Information can be easily accessed within the site and there are links back to the original page
- Offers search engines and/or help options (such as a site map) to make for ease of navigation through the site
- Distinguishes clearly between internal and external links

#### CONTENT

- Has a suitable title which explains what the site is all about
- Has meaningful content which is useful for the intended purpose
- Information is easy to read
- Content is grammatically correct and spelling is correct
- Content is current (up to date)
- Has links to external sites which are relevant and useful
- Includes pictures which contribute to the overall appearance and which are relevant and usable

#### CREDIBILITY

- Includes information about the author (e.g. contact details)
- Includes a recent date when the site/page was last updated
- Includes references or links to sources used in developing the site
- Does not inappropriately request fees or names and addresses
- Does not request that you buy something
- Does not include advertising which takes a long time to load

#### ADDITIONAL COMMENTS
This evaluation is based one retrieved from: http://www.sfc.wcape.school.za/Webeval.sfcj.htm
# STAGE 5 GEOGRAPHY: Changing Places

## Key inquiry questions
- Why has the world become more urbanised?
- How does migration impact on the concentration of people into urban places?
- How does urbanisation change environments and places?
- What strategies are used to manage environmental change in urban places to enhance sustainability?

## Overview

**Students:**
- examine the patterns and trends in population movements and the increasing urbanisation of countries
- discuss the reasons for internal and international migration patterns and the consequences of population movements, including the increased concentration of populations within countries
- examine strategies to create liveable and sustainable urban places, propose solutions and suggest opportunities for active citizenship.

## Outcomes

**A student:**
- explains processes and influences that form and transform places and environments GE5-2
- analyses the effect of interactions and connections between people, places and environments GE5-3
- assesses management strategies for places and environments for their sustainability GE5-5
- acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-7
- communicates geographical information to a range of audiences using a variety of strategies GE5-8.

## Syllabus references

**Teaching and learning activities**

*Inquiry questions:* For each key inquiry question, students are encouraged to design their own inquiry questions as a subset in order to complete the geographical inquiry process which forms the bases of these teaching and learning sequences.

*Assessment:* The strategies require students to demonstrate their learning and are all either *assessment for learning* or *assessment as learning* activities. Some activities might be selected and included in a school assessment schedule for *assessment of learning*.

## Urban settlement patterns

**Causes and consequences of urbanisation**

**Learning sequence 1**

*Teachers' note: urban settlement patterns*

*large permanent settlement, built up area with a relatively dense population compared to its hinterland*
Causes and consequences of urbanisation

Students:
- investigate the causes and consequences of urbanisation with reference to one Asian country, for example: (ACHGK054)
  - identification of spatial distribution patterns
  - description of the causes of urbanisation
  - examination of economic, social or environmental consequences of urbanisation

Key inquiry question:
- Why has the world become more urbanised?

Key inquiry question:
- How does migration impact on the concentration of people into urban places?

1.1 Urbanisation of Asia, a case study of an urban area

Teachers' note:
- define essential terms, including urbanisation, urban settlement, population, population movements, migration patterns, liveability of urban places, sustainable of urban places
- form student groups, of six and allocate one Asian urban area (a large city or regional centre), for each group to investigate and report on as a part of developing an overview of Asia's urban settlement patterns.

Hot Spot background

A national television network is seeking information about an Asian country's patterns of urbanisation to feature in a new reality television show called "Hot Spot". Hot Spot will highlight the distinctiveness of urban areas of the countries of Asia. A large media production company, who wants to tender for this show, has employed you and your classmates. Your managing director wants information about a country suitable to be the focus of their tender. You have been asked to form groups of six and to undertake a fact-finding mission about urbanisation in a country of Asia.

Each group is to design a two-page fact sheet on Asia's urban settlement patterns, using the urban 'focus' area allocated.

Include the following information:
- the construction of a graph/s showing past, current and predicted trends for urban settlement patterns of Asia, in general, and your focus area in particular
- a brief written summary outlining the settlement patterns of the focus area (include information from the above graph and from additional statistics) from the last two decades, presently, as well as forecasting into the future.
- an explanation of local and national factors determining why the focus area has been built up (including climate, topography, transportation networks, land use and liveability) and how the natural environment has changed as a result of urbanisation of the focus area
- an outline of how changes in urban settlement patterns are reflected in the focus areas' society more generally (consider the impacts on the nature of Asian communities and urbanisation).

A copy of each group's work will be distributed to all students.

Key inquiry question:
- How does urbanisation change environments and places?
- What strategies are used to manage environmental change in urban places to enhance sustainability?
• examination of characteristics and spatial patterns of Australia’s cultural diversity

Australia’s urban future

Students:
• investigate the management and planning of Australia’s urban future, for example:
  (ACHGK059)
  • description of Australia’s projected population growth
  • discussion of the implication of population forecasts for the future growth and sustainability of urban places
  • explanation of strategies used to create economically, socially and environmentally sustainable urban places
  • proposal of ways for individuals and communities to contribute to a sustainable urban future

1.2 Urbanisation in Australia

You have been successful in your application to feature in the reality television show. Your managing director has now asked that you source a case study of an urban area in Australia to feature on the television to show the distinct differences between Australia’s urban areas and those in Asia.

Your task is to prepare a four-page report on an Australian urban area, using graphs, maps and visual representations (with minimal writing), and the Process for geographical inquiry to answer the following question:

What are the patterns, causes and consequences of urbanisation in [urban area in Australia]?

In your report:
• Identify the spatial distribution patterns of Australia in general as compared to your ‘case study’ urban area within Australia and suggest reasons for differences.
• Describe the causes of urbanisation in Australia in general, and your case study urban area in particular.
• Examine the economic, social, environmental consequences of urbanisation both in Australia and your urban area.
• Identify strategies that are being used to manage environmental change in your urban area, and briefly indicate how these strategies aim to enhance sustainability of the environment.

Ensure that the information you have located is creditable. Acknowledge each step of the Process for geographical inquiry in your report.

Internal migration

Learning sequence 2
(possible assessment task - see outcomes, rubric and marking criteria at the end of this document)

Teachers’ note: Introduce migration terminology. Undertake a class survey of the various places that individuals have lived. Plot each of these locations on a map, introducing the concepts of internal and international migration, and push and pull factors.

You have been asked to analyse the internal and international migration patterns of staff and students at your school and report to the principal about:
  a) where respondents have lived
  b) what has influenced the location/s they have lived in (i.e. connections to people, place and environments)
  c) why they are in their current location (i.e. push and pull factors)

To complete this you will first need to:
  1. develop a questionnaire that you will carry out with a minimum of ten staff or students outside your classroom. Note that your questionnaire will need to go through a class “ethics committee” to ensure that the questions are suitable, and for approval to complete and administer the questionnaire. (Note: the teacher will be the ‘chair’ of the committee and will, with the class,
develop a series of conditions that will need to be followed. These conditions include:

1. methodology (qualitative, quantitative, mixed methods research)
2. suitability of questions
3. administer the questionnaire - make sure there are no “double-ups” by ensuring those answering your questionnaire haven’t already done so and collate the information
4. Present the information in the form of a succinct report using visual representations such as graphs, tables, maps or diagrams and information summarised to conclude analysis of findings.

Student note: Use the geographical inquiry process to give a format to this task. Begin with the development of some related inquiry questions that you would like answered. These will form the basis of your questionnaire.

Learning sequence 3

Australia’s urban future

(Related to Learning Sequence I)

As part of the selection criteria for employees to work on the final tender, the managing director (teacher) requires a more detailed synthesis of the proposed management and planning of Australia’s urban future than was outlined in the group aspect of Learning Sequence I (above) in the form of an analysis (maximum of two pages).

To prepare the final tender you will need to:
- describe Australia’s projected population growth
- construct a flowchart to illustrate the factors impacting on Australia’s population growth
- comment on the overall implication of population forecasts for the future growth and sustainability of urban places in Australia.

Congratulations, you have been selected by the managing director to prepare a bid for “Hotter Spot: the future”. It is to be displayed on a website so that judges from around the world will be able to comment. Your bid will focus on a City for the future.

Your task is to design a city for the future in Australia. You may design your city using technology, drawings or models. Prepare a two minute verbal presentation about your city for the future, including answering the following questions:
- What are three economic, social and environmental sustainability issues for your city, and what are your proposed solutions?
- What contributions will individuals and communities have to make to ensure the sustainability of your city for the future?
- What rules are you going to set for residents of your city for the future related to liveability?

When designing your “City for the Future” you are in the excellent position of having no pricing constraints whatsoever.
### Resources

United Nations Population Fund – news on urbanisation  
http://www.unfpa.org/urbanization

United Nations Department of Economic and Social Affairs Population Division: *World Urbanization Prospects, the 2014 revision*  
http://esa.un.org/unpd/wup/

State of Australian Cities 2014–2015 (Includes past reports from 2010)  

A national urban policy for a productive, sustainable and liveable future  

### Geographical terminology

- urbanisation
- urban settlement
- population
- population movements
- migration patterns
- liveability of urban places
- sustainable of urban places
- spatial distribution patterns
- urban settlement patterns

### Geographical concepts

- The following **geographical concepts** have been integrated into the teaching and learning sequence:
  - **Place**: the reasons why urban environments differ
  - **Space**: how space is managed in different places
  - **Environment**: the change to the natural environment as a result of urbanisation
  - **Interconnection**: the links between population growth and liveability of an urban area
  - **Scale**: the differences in urbanisation of Asia and Australia at a variety of scales
  - **Sustainability**: how urban environments can be managed sustainably

### Geographical inquiry skills

- The following **geographical inquiry skills** have been integrated into the unit:
  - **Acquiring geographical information**
    - develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts (ACHGS063, ACHGS072)
    - collect, select, record and organise relevant data and geographical information, using ethical protocols, from a variety of appropriate primary data and secondary information sources (ACHGS064, ACHGS073)
  - **Processing geographical information**
    - evaluate information sources for their reliability, bias and usefulness (ACHGS065, ACHGS074)

### Geographical tools

- The following **geographical tools** have been integrated into the unit:
  - **Maps**
    - relief maps, political maps, topographic maps, choropleth maps, flowline maps, cadastral maps, thematic maps, isoline maps, land use maps, précis maps, special-purpose maps, cartograms, synoptic charts
    - maps to identify direction, scale and distance, area and grid references, degrees and minutes of latitude and longitude, bearings, aspect, altitude, area, density, contour lines, gradient, local relief
  - **Fieldwork**
    - observing, measuring, collecting and recording data, developing and conducting surveys and interviews
    - fieldwork instruments such as weather instruments, vegetation identification charts, compasses,
**Change**: the economic, social and environmental sustainability issues of a changing city; predictions for the future development and design of cities

- represent multi-variable data in a range of appropriate forms, with and without the use of digital and spatial technologies (ACHGS065, ACHGS074)
- represent the spatial distribution of geographical phenomena on maps that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS066, ACHGS075)
- evaluate multi-variable data and other geographical information using qualitative and quantitative methods and digital and spatial technologies as appropriate to make generalisations and inferences, propose explanations for patterns, trends, relationships and anomalies, and predict outcomes (ACHGS067, ACHGS076)
- apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative perspectives (ACHGS068, ACHGS077)
- identify how geographical information systems (GIS) might be used to analyse geographical data and make predictions (ACHGS069, ACHGS078)

**Communicating geographical information**
- present findings, arguments and explanations in a range of appropriate communication forms selected for their effectiveness and to suit audience and purpose, using relevant geographical terminology and digital technologies as appropriate (ACHGS070, ACHGS079)
- reflect on and evaluate the findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations; and clinometers, GPS, GIS or remote sensing

**Graphs and statistics**
- data tables, pie graphs, column graphs, compound column graphs, line graphs, scatter graphs, climate graphs, population profiles, multiple tables and graphs presented on a geographical theme, statistics to find patterns and trends, and to account for change

**Spatial technologies**
- virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS), remote sensing data, augmented reality

**Visual representations**
- photographs, aerial photographs, illustrations, flow charts, annotated diagrams, multimedia, field and photo sketches, cartoons, mind maps, web tools

| Change: the economic, social and environmental sustainability issues of a changing city; predictions for the future development and design of cities | represent multi-variable data in a range of appropriate forms, with and without the use of digital and spatial technologies (ACHGS065, ACHGS074) | represent the spatial distribution of geographical phenomena on maps that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS066, ACHGS075) | evaluate multi-variable data and other geographical information using qualitative and quantitative methods and digital and spatial technologies as appropriate to make generalisations and inferences, propose explanations for patterns, trends, relationships and anomalies, and predict outcomes (ACHGS067, ACHGS076) | apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative perspectives (ACHGS068, ACHGS077) | identify how geographical information systems (GIS) might be used to analyse geographical data and make predictions (ACHGS069, ACHGS078) | Communicating geographical information | present findings, arguments and explanations in a range of appropriate communication forms selected for their effectiveness and to suit audience and purpose, using relevant geographical terminology and digital technologies as appropriate (ACHGS070, ACHGS079) | reflect on and evaluate the findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations; and clinometers, GPS, GIS or remote sensing | Graphs and statistics | data tables, pie graphs, column graphs, compound column graphs, line graphs, scatter graphs, climate graphs, population profiles, multiple tables and graphs presented on a geographical theme, statistics to find patterns and trends, and to account for change | Spatial technologies | virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS), remote sensing data, augmented reality | Visual representations | photographs, aerial photographs, illustrations, flow charts, annotated diagrams, multimedia, field and photo sketches, cartoons, mind maps, web tools |
explain the predicted outcomes and consequences of their proposal (ACHGS071, ACHGS080).

**Assessment task and rubric**

**Outcomes**

- analyses the effect of interactions and connections between people, places and environments GE5-3
- acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-7

**Internal and international migration**

**Assessment task**

You have been asked to analyse the internal and international migration patterns of staff and students at your school and report to the principal about:

a) where respondents have lived  
 b) what has influenced the location/s they have lived in (i.e. connections to people, place and environments)  
 c) why they are in their current location (i.e. push and pull factors)

To complete this you will first need to:

1. Develop a questionnaire that you will carry out with a minimum of ten staff or students outside your classroom. Note that your questionnaire will need to go through a class “ethics committee” to ensure that the questions are suitable, and for approval to complete and administer the questionnaire. (Note: the teacher will be the ‘chair’ of the committee and will, with the class, develop a series of conditions that will need to be followed. These conditions include:
   i. methodology (qualitative, quantitative, mixed methods research)  
   ii. suitability of questions.

2. Administer the questionnaire - make sure there are no “double-ups” by ensuring those answering your questionnaire haven’t already done so and collate the information.

3. Present the information in the form of a succinct report using visual representations such as graphs, tables, maps or diagrams and information summarised to conclude analysis of findings.

Student note: Use the *Process for geographical inquiry* to give a format to this task. Begin with the development of some related inquiry questions that you would like answered. These will form the basis of your questionnaire.

| 9-10 | Creates detailed survey, including highly relevant questions, demonstrating excellent understanding of migration patterns.  
| | Conducts and completes all surveys.  
| | Collates and presents relevant information in highly detailed graphs.  
| | Compares and contrasts information highly effectively.  
| | Maps all locations accurately.  
| | Analyses push and pull factors, providing multiple sources of evidence.  
| | Draws strong and succinct conclusions regarding connections to people, place and environments with supporting evidence.  
| | Creates survey, including relevant questions, demonstrating good understanding of migration patterns.  
<p>| | Conducts and completes all surveys. |</p>
<table>
<thead>
<tr>
<th>7-8</th>
<th>5-6</th>
<th>3-4</th>
<th>1-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Collates and presents relevant information in detailed graphs.</td>
<td>• Creates survey, including some relevant questions, demonstrating some understanding of migration patterns.</td>
<td>• Creates survey, including some relevant questions, demonstrating a basic understanding of migration patterns.</td>
<td>• Creates survey, including few relevant questions, demonstrating limited understanding of migration patterns.</td>
</tr>
<tr>
<td>• Compares and contrasts information well.</td>
<td>• Conducts and completes most surveys.</td>
<td>• Conducts and completes a few surveys.</td>
<td>• Conducts and completes minimal surveys.</td>
</tr>
<tr>
<td>• Maps various locations accurately.</td>
<td>• Collates and presents some relevant information in graphs.</td>
<td>• Collates and presents basic relevant information in graphs.</td>
<td>• Presents limited relevant information in graphs.</td>
</tr>
<tr>
<td>• Analyses push and pull factors, providing sources of evidence.</td>
<td>• Compares and contrasts some information.</td>
<td>• Compares and contrasts basic information.</td>
<td>• Provides some information.</td>
</tr>
<tr>
<td>• Draws relevant conclusions regarding connections to people, place and environments with supporting evidence.</td>
<td>• Maps some locations accurately.</td>
<td>• Maps a few locations accurately.</td>
<td>• Maps minimal locations accurately.</td>
</tr>
<tr>
<td></td>
<td>• Discusses push and pull factors.</td>
<td>• Discusses some push and pull factors.</td>
<td>• Provides some information about push and pull factors.</td>
</tr>
<tr>
<td></td>
<td>• Draws some conclusions regarding connections to people, place and environments with supporting evidence</td>
<td></td>
<td>• Draws limited conclusions regarding connections to people, place and environments with supporting evidence</td>
</tr>
</tbody>
</table>

**Differentiation**

**Evaluation**
# STAGE 5 GEOGRAPHY: Environmental change and management

## Key inquiry questions

- How do environments function?
- How do people’s worldviews affect their attitudes to and use of environments?
- What are the causes and consequences of change in environments and how can this change be managed?
- Why is an understanding of environmental processes and interconnections essential for sustainable management of environments?

## Overview

### Students:

- develop an understanding of the functioning of environments and the scale of human-induced environmental change challenging sustainability
- explore worldviews influencing approaches to environmental use and management
- undertake an investigative study of the causes and consequences of environmental change in an environment in Australia and another country
- compare and evaluate the management responses in both countries and propose ways individuals can contribute to environmental sustainability.

## Outcomes

### A student:

- explains processes and influences that form and transform places and environments GE5-2
- analyses the effect of interactions and connections between people, places and environments GE5-3
- accounts for perspectives of people and organisations on a range of geographical issues GE5-4
- assesses management strategies for places and environments for their sustainability GE5-5
- acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-7
- communicates geographical information to a range of audiences using a variety of strategies GE5-8

## Syllabus references

### Teaching and learning activities

*Inquiry questions:* For each key inquiry question, students are encouraged to design their own inquiry questions as a subset in order to complete the geographical inquiry process which forms the bases of these teaching and learning sequences.

*Assessment:* The strategies require students to demonstrate their learning and are all either *assessment for learning* or *assessment as learning* activities. Some activities might be selected and included in a school assessment schedule for *assessment of learning.*

## Environments

### Students

- investigate the role and importance of natural environments
- examination of the diversity of natural environments

### Environments

#### Learning sequence 1

**Key inquiry question:**

- How do environments function?

**World Discovery Tour**
You are travelling around the world. Revise the different types of natural biomes or environments* that exist in the world** and plan a world discovery tour that will take you to all of the continents, and include one destination (place) from each of the listed natural environments below.

<table>
<thead>
<tr>
<th>biomes</th>
<th>aquatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>land (terrestrial)</td>
<td>oceans</td>
</tr>
<tr>
<td></td>
<td>rivers</td>
</tr>
<tr>
<td></td>
<td>coral reefs</td>
</tr>
<tr>
<td></td>
<td>wetlands</td>
</tr>
<tr>
<td></td>
<td>rainforests</td>
</tr>
<tr>
<td></td>
<td>grasslands</td>
</tr>
<tr>
<td></td>
<td>tundra</td>
</tr>
<tr>
<td></td>
<td>woodlands</td>
</tr>
<tr>
<td></td>
<td>deserts</td>
</tr>
<tr>
<td></td>
<td>coasts</td>
</tr>
<tr>
<td><em>Antarctic</em>**</td>
<td>ice</td>
</tr>
</tbody>
</table>

* Note that for the purposes of the syllabus, biomes and natural environments are synonymous, with the exception of anthropogenic biomes- or predominantly human altered terrestrial biomes.

**Refer to Sustainable Biomes*

Plot the tour on a world map and prepare supplementary written or graphical information (maximum two pages) that includes the following information:

- the location of an example of a place from each biome/natural environment (include latitude and longitude)
- the route to be travelled
- the time zones crossed from one environment to the next (changing longitude lines)
- the compass directions between each destination
- the distance between each destination using different representations of scale
- the map projection used.

**Key inquiry question:**

- How do people’s worldviews affect their attitudes to and use of environments?

For each place visited, develop a two page written and/or graphical presentation that will provide:

- a brief (six lines) description of the key physical features of each environment in the places visited
- the role and importance of each environment for a variety of people
- pictures / photos of some of the destinations.

**Learning sequence 2**

**Teachers’ note:**

Tasks 1.1 and 1.2 are designed for independent student work, however Task 1.3 requires at least four students to have studied any one environment in order for them to form groups. You will need to monitor/negotiate which students are studying which environment from the beginning of Task 1, so as to not cause difficulties for Task 3. Also note that a comparative study is required, so teachers may wish to demonstrate the study of an environment found within Australia (Task 1.2) as a whole class activity, before proceeding with the comparison.
climate change
- comparison and evaluation of the effectiveness of the management responses in achieving environmental sustainability
- proposal of how individuals could contribute to achieving environmental sustainability for the environment in each country

Students
- investigate environmental management, including different worldviews and the management approaches of Aboriginal and Torres Strait Islander Peoples (ACHGK071, ACHGK072)
- discussion of varying environmental management approaches and perspectives

(Task 1.4).

Pre task
View “The Lorax” (original version on YouTube, approximately 25 minutes duration). Discuss key environmental/sustainability concepts evident in the film.

As a group, explore a number of websites that can show the change in environments over time. Note the changes, and discuss possible causes. Classify the environmental changes as human, natural or both, and define the extent of the changes (scale).

ESRI
http://storymaps.esri.com/stories/LandsatCompare/

NASA Earth Observatory
http://earthobservatory.nasa.gov/Features/WorldOfChange/index.php

1.1 Moving home

You are returning home from your world tour. Select one natural environment found in Australia and investigate and report on it from the perspective of your intention to live there.

In your response
- Mark the distribution of the particular environment in Australia on a blank map.
- Draw and label a diagram of an ecosystem that operates in this environment.
- Describe the climate/weather patterns evident in the environment and suggest the style of clothing and housing required to cope with these elements throughout the year.
- Describe the special living conditions in the environment and how different groups have adapted.
- Draw a sketch map of one specific example of the environment.
- Investigate a range of images (e.g. Oblique, aerial, ground-level, satellite) showing the changes to this environment over time.
- Locate this environment on a topographic map using grid and area references.
- Describe the geomorphic and hydrologic processes that occurred in forming the specific environment.
- Provide a diagram of one basic food web that exists within the environment.
- Outline any threats that exist with regards to the above food web and any strategies that can be implemented to protect the web.

1.2 Environmental Experts*
(possible assessment task - see outcomes, rubric and marking criteria at the end of this document)

The Australian government’s Department of Environment has commissioned you to research and provide a multimedia report on the biophysical processes that operate within your chosen environment from 1.1.

The multimedia presentation can include the use of:
- a PowerPoint Presentation or Prezi, or similar
- pictures / diagrams from the internet on a poster
- word documents
- a web page design
- other (with teacher permission)

Your report is to include:
- a line drawing that depicts four major landscape features found within this environment
- a brief (10 lines each) explanation of the existence and development of each of the features in the line drawing
- a list and definition of the atmospheric and biospheric processes that operate within the environment, and how, combined with the geomorphic and hydrologic processes (outlined in 1.1), they maintain the function of the environment
- an outline of the importance of water to this environment (including information on where it can be found, how it gets there and its importance for the ecosystems found within the environment).

Environmental change

1.3 Community Meeting

A number of government officials from the Department of Environment will be visiting the specific environment to observe the biospheric processes “in real life”, to meet a number of communities, and to learn about the interactions between the people and the environments. They will be meeting you!

In groups of four to six, based on the environment you have studied:
- Choose a community that exists within that environment.
- Assign each member of the group the role of representing a different perspective from within the community. These perspectives will include those of individuals, community organisations and governments, such as a government official, farmer, town planner, builder, etc.
- Each member of the group researches their perspective and reports on it by contributing to a group presentation.
- Each group presents their perspectives on the environment they have studied to the class. The class will then vote to determine the presentation they learnt most from. (Use a column graph to depict these results.)

Questions to be addressed by each group member in representing their individual perspective include:
- How does the environment influence your life?
- How do you use the environment?
- How has this use changed over the past decade?
- What have you done to influence this change?
- What have been the (short and long term) consequences of this environmental change?
- What do you believe are the governments’ responsibilities to the community and the environment?
- What have been the responses to this environmental change thus far, and at a variety of scales, including worldviews?
- What strategies are there for future sustainable interactions between the people and this environment?

Investigative study

1.4 Country comparison
Your multimedia report task 1.2 has been very well received by the Australian government, and as a result, a government from another country has asked you to repeat the process using a different natural environment found in that country as a comparative study.

Repeat tasks 1.1 – 1.3 using the chosen country and specific environment as a study.

**Environmental management**

**Key inquiry question:**
- What are the causes and consequences of change in environments and how can this change be managed?

1.5 Each of the governments from tasks 1.2 and 1.4 (i.e. the Australian government and one other) have asked for more information about how the environments chosen in these tasks have been/are managed by indigenous people of that environment.

Research this, and provide a comprehensive account that compares and contrasts the approaches taken by the groups that you have studied. Ensure that you:
- include information about where both of these groups live in the environment
- reference and summarise the threats/change over time to the environment
- include management strategies being currently employed by the indigenous groups.

(Maximum four pages).

**1.6 Class discussion**

**Key inquiry question:**
- Why is an understanding of environmental processes and interconnections essential for sustainable management of environments?

Discuss the key inquiry question as a class and write down the insights from the discussion in ten main points.

---

**Resources**

ESRI
http://storymaps.esri.com/stories/LandsatCompare/

NASA Earth Observatory
http://earthobservatory.nasa.gov/Features/WorldOfChange/index.php

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**Geographical terminology**

natural environments
biome

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Learning and Teaching Directorate
<table>
<thead>
<tr>
<th>Geographical concepts</th>
<th>Geographical inquiry skills</th>
<th>Geographical tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following geographical concepts have been integrated into the teaching and learning sequence:</td>
<td>The following geographical inquiry skills have been integrated into the unit:</td>
<td>The following geographical tools have been integrated into the unit:</td>
</tr>
</tbody>
</table>
| **Place**: In what places have human activities had the greatest impact on the natural environment? | **Acquiring geographical information**  
• develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts (ACHGS063, ACHGS072)  
• collect, select, record and organise relevant data and geographical information, using ethical protocols, from a variety of appropriate primary data and secondary information sources (ACHGS064, ACHGS073) | **Maps**  
• relief maps, political maps, topographic maps, choropleth maps, flowline maps, cadastral maps, thematic maps, isoline maps, land use maps, précis maps, special-purpose maps, cartograms, synoptic charts  
• maps to identify direction, scale and distance, area and grid references, degrees and minutes of latitude and longitude, bearings, aspect, altitude, area, density, contour lines, gradient, local relief  
| **Space**: Conflicts arising from competing uses of space for agriculture, urban, recreational and industrial land uses | **Processing geographical information**  
• evaluate information sources for their reliability, bias and usefulness (ACHGS065, ACHGS074)  
• represent multi-variable data in a range of appropriate forms, with and without the use of digital and spatial technologies (ACHGS065, ACHGS074)  
• represent the spatial distribution of geographical phenomena on maps that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS066, ACHGS075)  
• evaluate multi-variable data and other geographical information using qualitative and quantitative methods and digital and spatial technologies as appropriate to make generalisations and inferences, propose explanations for patterns, trends, relationships and anomalies, and predict | **Fieldwork**  
• observing, measuring, collecting and recording data, developing and conducting surveys and interviews  
• fieldwork instruments such as weather instruments, vegetation identification charts, compasses, clinometers, GPS, GIS or remote sensing  
| **Environment**: The significance of environments | **Graphs and statistics**  
• data tables, pie graphs, column graphs, compound column graphs, line graphs, scatter graphs, climate graphs, population profiles, multiple tables and graphs presented on a geographical theme, statistics to find patterns and trends, and to account for change | **Spatial technologies**  
• virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS), remote sensing data, augmented reality  
| **Interconnection**: Plants and animals are interconnected and managed within environments | **Change**: The protection of environments as a result of sustainable management practices  
<p>| <strong>Scale</strong>: management and protection of environments at local, regional, national and global scales | <strong>Sustainability</strong>: Human induced changes have implications on environments in the short and long terms |</p>
<table>
<thead>
<tr>
<th>Outcomes (ACHGS067, ACHGS076)</th>
<th>Visual representations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative perspectives (ACHGS068, ACHGS077)</td>
<td>• photographs, aerial photographs, illustrations, flow charts, annotated diagrams, multimedia, field and photo sketches, cartoons, mind maps, web tools</td>
</tr>
<tr>
<td>• identify how geographical information systems (GIS) might be used to analyse geographical data and make predictions (ACHGS069, ACHGS078)</td>
<td></td>
</tr>
</tbody>
</table>

**Communicating geographical information**

| • present findings, arguments and explanations in a range of appropriate communication forms selected for their effectiveness and to suit audience and purpose, using relevant geographical terminology and digital technologies as appropriate (ACHGS070, ACHGS079) | |
| • reflect on and evaluate the findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations; and explain the predicted outcomes and consequences of their proposal (ACHGS071, ACHGS080). | |

**Assessment task and rubric**

**Outcomes**

- explains processes and influences that form and transform places and environments GE5-2
- communicates geographical information to a range of audiences using a variety of strategies GE5-8

**Environmental experts**

The Australian government's Department of Environment has commissioned you to research and provide a multimedia report on the biophysical processes that operate within your chosen environment from 1.1.

The multimedia presentation can include the use of:

- a PowerPoint Presentation or Prezi, or similar
- pictures / diagrams from the internet on a poster
Your report is to include:

- a line drawing that depicts four major landscape features found within this environment
- a brief (10 lines each) explanation of the existence and development of each of the features in the line drawing
- a list and definition of the atmospheric and biospheric processes that operate within the environment, and how, combined with the geomorphic and hydrologic processes (outlined in 1.1), they maintain the function of the environment.
- an outline of the importance of water to this environment (including information on where it can be found, how it gets there and its importance for the ecosystems found within the environment)

| 9-10 | • Illustrates and explains, clearly and concisely, four major landscape features found within this environment.  
• Explains the biophysical processes operating in the selected environments concisely and accurately.  
• Outlines the importance of water to the environment, including a comprehensive description of all factors. |
|------|-------------------------------------------------------------------------------------------------|
| 7-8  | • Illustrates and explains four major landscape features found within this environment.  
• Explains the biophysical processes operating in the selected environments.  
• Outlines the importance of water to the environment, including a good description of all factors. |
| 5-6  | • Illustrates and explains some of the major landscape features found within this environment.  
• Explains the biophysical processes operating in one of the environments.  
• Outlines the importance of water to the environment, including a good description of some factors. |
| 3-4  | • Illustrates and includes some of the major landscape features found within this environment.  
• Provides a basic description of the biophysical processes operating in one of the environments.  
• Outlines the importance of water to the environment, including some description of some factors. |
| 1-2  | • Illustrates and includes limited features found within this environment.  
• Provides a limited description of the biophysical processes operating in one of the environments.  
• Includes some information about the importance of water to the environment. |

**Differentiation**
Evaluation
**STAGE 5 GEOGRAPHY: Human wellbeing**

**Key inquiry questions**

- What makes human wellbeing a geographical issue?
- How can the spatial variations in human wellbeing and development be measured and explained?
- What are the economic, social and environmental impacts of variations in development and human wellbeing?
- How do governments, groups and individuals respond to inequalities in development and human wellbeing for a sustainable future?

**Overview**

Students:

- examine the nature of, and differences in, human wellbeing and development that exist within and between countries
- describe ways of measuring human wellbeing and development to reveal spatial variations and develop explanations for differences
- investigate examples from Australia and across the world of issues affecting development, the impact on human wellbeing and the consequences of spatial variations across scales
- examine local, national and global initiatives to improve human wellbeing.

**Outcomes**

A student:

- explains the diverse features and characteristics of a range of places and environments GE5-1
- explains processes and influences that form and transform places and environments GE5-2
- analyses differences in human wellbeing and ways to improve human wellbeing GE5-6
- acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-7
- communicates geographical information to a range of audiences using a variety of strategies GE5-8

**Syllabus references**

**Teaching and learning activities**

**Inquiry questions**: For each key inquiry question, students are encouraged to design their own inquiry questions as a subset in order to complete the geographical inquiry process which forms the bases of these teaching and learning sequences.

**Assessment**: The strategies require students to demonstrate their learning and are all either assessment for learning or assessment as learning activities. Some activities might be selected and included in a school assessment schedule for assessment of learning.

<table>
<thead>
<tr>
<th>Human wellbeing and development</th>
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</thead>
<tbody>
<tr>
<td><strong>Spatial variations in human wellbeing</strong></td>
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</tr>
<tr>
<td><strong>Learning sequence 1</strong></td>
<td><strong>Learning sequence 1</strong></td>
</tr>
<tr>
<td><strong>Key inquiry question:</strong></td>
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<td>• How can the spatial variations in human wellbeing and development be measured and explained?</td>
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</tbody>
</table>
for human wellbeing -
- description of ways of measuring and mapping human wellbeing and development for the purpose of identifying and analysing spatial variations
- analysis of contemporary trends in human wellbeing and development

Spatial variations in human wellbeing

Students:
• investigate causes, issues and consequences of spatial variations in human wellbeing, for example: (ACHGK077, ACHGK078, ACHGK079)
  - description of spatial variations in human wellbeing and development between and within countries using selected indicators
  - examination of reasons for and consequences of spatial variations in human wellbeing and development
  - discussion of issues affecting the development of places and their impact on human wellbeing in ONE country or region

Human wellbeing in Australia

Students:
• investigate the reasons for and consequences of spatial variations in human wellbeing in Australia, for example: (ACHGK080)
  - identification of differences in human wellbeing in Australia using a range of indicators
  - examination of reasons for and consequences of differences in human wellbeing for TWO groups of people in Australia e.g. cultural groups, unemployed, the aged, young people, people with disabilities
  - analysis of how human

Teachers’ note: Pre task
• Explore GapMinder (www.gapminder.org) and the United Nations Development Program (http://hdr.undp.org/en) and develop an explanation of the concepts behind the Human Development Index (HDI).
• Watch “200 Counties, 200 Years, 4 Minutes” http://www.gapminder.org/videos/200-years-that-changed-the-world-bbc/. Ask students to follow the progress of particular countries and hypothesise about factors contributing to that country’s progress. This should lead to class discussion and exploration about the inequalities and variation in quality of life.
• Introduce the Millennium Development Goals (MDG) (http://www.un.org/millenniumgoals/).
• Write an overview of the ways human wellbeing and development is measured and mapped.

Improving human wellbeing

Key inquiry question:
• What are the economic, social and environmental impacts of variations in development and human wellbeing?
• How do governments, groups and individuals respond to inequalities in development and human wellbeing for a sustainable future?

You have been selected to work in a team to develop a presentation for world leaders at a youth summit on human wellbeing. The aim of the summit is for world leaders to determine what support and funding will be allocated in the next five-year strategic plan to improve global human wellbeing. Each team is to address one of the eight MDGs and will need to develop a presentation for the leaders:

For your group allocated Millennium Development Goal, develop a PowerPoint, Prezi or similar presentation, that:

• defines the goal
• communicates the issues that relate to this goal
• communicates the progress made towards achieving the goal over time
• includes supporting statistics
• includes case studies showing progress made in addressing the goal.

Remember that the purpose of your presentation is to encourage action by world leaders to address your chosen goal, so your presentation needs to be persuasive.

In your presentation:
• Describe the goal and the countries/regions of the world that the goal most affects. You must give explicit examples.
• Outline how progress of or decline in the achievement of the goal is measured. Give a variety of indicators.
• Analyse why the goal was chosen, via a summary that investigates the causes of the issues related to the goal and the consequences of not aiming to achieve the target of the goal, i.e. importance of the goal to improve human wellbeing.
• an evaluation of the roles, initiatives and actions of different levels
wellbeing is influenced by where people live in Australia

**Improving human wellbeing**

Students:
- investigate initiatives to improve human wellbeing in Australia and other countries, for example: (ACHGK081)
  - evaluation of initiatives by governments and non-government organisations to reduce spatial variations in human wellbeing
  - discussion of the role individuals play in improving human wellbeing
  - proposal for action by governments, organisations or individuals to improve the wellbeing of ONE group in Australia

of government and non-government organisations in relation to achieving the goal and thus reducing spatial variations.

For your allocated goal, world leaders will need to see supporting statistics, progress toward these goals over time, and case studies.

**Human wellbeing in Australia**

**Learning sequence 2**

*Teachers’ note: ensure that students can navigate the Australian Bureau of Statistics site (www.abs.gov.au) and the demographic data. Data for the Local Government Areas (LGA) can be located at: http://stat.abs.gov.au/itt/r.jsp?databyregion#/

Magazine article*  
(Possible assessment task - see outcomes, rubric and marking criteria at the end of this document.)

Your presentation to world leaders has been very successful. One media outlet has indicated that an editor of a magazine within a weekend newspaper has decided to give a double page spread (four A4-pages) to an article, including photographs, written by an individual Year 10 student, on the spatial variations of human wellbeing in Australia and a case study of one of the initiatives in place to try to address one of the aforementioned spatial variations.

You have received an email from the editor:

Re: article

*We need to grab the attention of readers by exposing just how tough it can be if you live in certain parts of the country. Make sure that you interview a cross section of people from urban, regional and remote communities so that we give a balanced perspective. Jump onto the ABS website to get the most recent demographic data, highlight the variations by postcode and include some attention grabbing graphics. It can’t all be doom and gloom though, outline what the various levels of government are doing, as well initiatives of the NGO sector. Make sure you finish with some positives so that people have hope for the future. Ed.*

Your school would like one of its student’s work to be published and has given all Year 10 the opportunity to be selected.

Your presentation (text and pictures) should be set out in newspaper format and contain:
- an appropriate and interesting title
- a brief acknowledgement of what is meant by “spatial variations” and “human wellbeing”
- a brief overview of the spatial variations that exist in Australia – including a graphical representation
- a case study of a particular issue related to human wellbeing and the spatial variations of this issue throughout the country:
  - an overview of the chosen case study
  - responses within Australia to this issue from various levels of government
  - perceptions and responses of other nations and overseas
organisations on this issue
- future strategies for Australia to address this issue impacting on human wellbeing.

In the process of investigating this issue, you have will have used a range of websites accessing information from various sources, both government and non-government. Select one website that you used and analyse the website for authenticity, including the ethics of the site (see ‘Evaluating a website’ – included below).

### Resources

<table>
<thead>
<tr>
<th>Resource</th>
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</tr>
</thead>
<tbody>
<tr>
<td>GapMinder</td>
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</tr>
<tr>
<td>200 Counties, 200 Years, 4 Minutes</td>
<td><a href="http://www.gapminder.org/videos/200-years-that-changed-the-world-bbc/">http://www.gapminder.org/videos/200-years-that-changed-the-world-bbc/</a></td>
</tr>
<tr>
<td>Millennium Development Goals (MDG)</td>
<td><a href="http://www.un.org/millenniumgoals/">http://www.un.org/millenniumgoals/</a></td>
</tr>
<tr>
<td>Australian Bureau of Statistics</td>
<td><a href="http://www.abs.gov.au">www.abs.gov.au</a></td>
</tr>
</tbody>
</table>

### Geographical terminology

- Human wellbeing
- Developed countries
- Developing countries
- Gross Domestic Product (GDP)
- Human Development Index (HDI)

### Geographical concepts

- **Place**: The impact of spatial variations on places
- **Space**: How do measurements show different spatial variations in human wellbeing in a variety of places?
- **Environment**: the link between

### Geographical inquiry skills

- The following **geographical inquiry skills** have been integrated into the unit:
  - **Acquiring geographical information**
    - develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts (ACHGS063, ACHGS072)
    - collect, select, record and organise relevant data and geographical information, using

### Geographical tools

- The following **geographical tools** have been integrated into the unit:
  - **Maps**
    - relief maps, political maps, topographic maps, choropleth maps, flowline maps, cadastral maps, thematic maps, isoline maps, land use maps, précis maps, special-purpose maps, cartograms, synoptic charts
    - maps to identify direction, scale and distance, area and grid references, degrees and
### Learning and Teaching Directorate

<table>
<thead>
<tr>
<th>The Millennium Development Goals and the environment</th>
<th>Ethical protocols, from a variety of appropriate primary data and secondary information sources (ACHGS064, ACHGS073)</th>
<th>Minutes of latitude and longitude, bearings, aspect, altitude, area, density, contour lines, gradient, local relief</th>
</tr>
</thead>
</table>
| **Interconnection:** the economic, social and environmental factors influencing spatial variations in global human well being | **Processing geographical information**  
- evaluate information sources for their reliability, bias and usefulness (ACHGS065, ACHGS074)  
- represent multi-variable data in a range of appropriate forms, with and without the use of digital and spatial technologies (ACHGS065, ACHGS074)  
- represent the spatial distribution of geographical phenomena on maps that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS066, ACHGS075)  
- evaluate multi-variable data and other geographical information using qualitative and quantitative methods and digital and spatial technologies as appropriate to make generalisations and inferences, propose explanations for patterns, trends, relationships and anomalies, and predict outcomes (ACHGS067, ACHGS076)  
- apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative perspectives (ACHGS068, ACHGS077)  
- identify how geographical information systems (GIS) might be used to analyse geographical data and make predictions (ACHGS069, ACHGS078) | **Fieldwork**  
- observing, measuring, collecting and recording data, developing and conducting surveys and interviews  
- fieldwork instruments such as weather instruments, vegetation identification charts, compasses, clinometers, GPS, GIS or remote sensing |
| **Scale:** the variations between national and local human wellbeing | **Communicating geographical information**  
- present findings, arguments and explanations in a range of appropriate communication forms selected for their effectiveness and to suit audience and purpose, using relevant geographical terminology and digital technologies as appropriate | **Graphs and statistics**  
- data tables, pie graphs, column graphs, compound column graphs, line graphs, scatter graphs, climate graphs, population profiles, multiple tables and graphs presented on a geographical theme, statistics to find patterns and trends, and to account for change |
| **Sustainability:** the importance of sustainable practices to ensure the wellbeing of people | **Spatial technologies**  
- virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS), remote sensing data, augmented reality | **Visual representations**  
- photographs, aerial photographs, illustrations, flow charts, annotated diagrams, multimedia, field and photo sketches, cartoons, mind maps, web tools |
| **Change:** The benefits of achieving the Millennium Development Goals | | |

**Fieldwork**
- observing, measuring, collecting and recording data, developing and conducting surveys and interviews
- fieldwork instruments such as weather instruments, vegetation identification charts, compasses, clinometers, GPS, GIS or remote sensing

**Graphs and statistics**
- data tables, pie graphs, column graphs, compound column graphs, line graphs, scatter graphs, climate graphs, population profiles, multiple tables and graphs presented on a geographical theme, statistics to find patterns and trends, and to account for change

**Spatial technologies**
- virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS), remote sensing data, augmented reality

**Visual representations**
- photographs, aerial photographs, illustrations, flow charts, annotated diagrams, multimedia, field and photo sketches, cartoons, mind maps, web tools
• reflect on and evaluate the findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations; and explain the predicted outcomes and consequences of their proposal (ACHGS071, ACHGS080).

Assessment task and rubric

Human wellbeing in Australia

Outcomes

• analyses differences in human wellbeing and ways to improve human wellbeing GE5-6
• communicates geographical information to a range of audiences using a variety of strategies GE5-8

Assessment task

Your presentation to world leaders has been very successful. One media outlet has indicated that an editor of a magazine within a weekend newspaper has decided to give a double page spread (four A4-pages) to an article, including photographs, written by an individual Year 10 student, on the spatial variations of human wellbeing in Australia and a case study of one of the initiatives in place to try to address one of the aforementioned spatial variations.

In fact you have received an email from the editor:

Re: article
We need to grab the attention of readers by exposing just how tough it can be if you live in certain parts of the country. Make sure that you interview a cross section of people from urban, regional and remote communities so that we give a balanced perspective. Jump onto the ABS website to get the most recent demographic data, highlight the variations by postcode and include some attention grabbing graphics. It can’t all be doom and gloom though, outline what the various levels of government are doing, as well initiatives of the NGO sector. Make sure you finish with some positives so that people have hope for the future. Ed.

Your school would like one of its student's work to be published and has given all Year 10 the opportunity to be selected.

Your presentation (text and pictures) should be set out in newspaper format and contain:
• an appropriate and interesting title
• a brief acknowledgement of what is meant by “spatial variations” and “human wellbeing”
• a brief overview of the spatial variations that exist in Australia – including a graphical representation
• a case study of a particular issue related to human wellbeing and the spatial variations of this issue throughout the country:
  o an overview of the chosen case study
  o responses within Australia to this issue from various levels of government
  o perceptions and responses of other nations and overseas organisations on this issue
  o future strategies for Australia to address this issue impacting on human wellbeing.
  o In the process of investigating this issue, you have will have used a range of websites accessing information from various sources, both government and non-government. Select
one website that you used and analyse the website for authenticity, including the ethics of the site (see attached ‘Evaluating a website’ – criteria).

| 9-10 | • Includes full and detailed interviews from multiple sources across urban, regional and remote communities using appropriate quotations  
• Focuses on current comparison and research data from ABS, clearly defined postcodes  
• Includes multiple attention grabbing and appropriate graphics  
• Outlines clearly the various levels of government response to the issues  
• Includes multiple pieces of positive information to conclude the article |
|---|---|
| 7-8 | • Includes clear interviews from sources across urban, regional and remote communities using appropriate quotations  
• Focuses on current research data from ABS and defines postcodes  
• Includes attention grabbing, appropriate graphics  
• Outlines the various levels of government response to the issues  
• Includes one or two pieces of positive information to conclude the article |
| 5-6 | • Includes some interviews from sources across either urban, regional and remote communities using quotations  
• Focuses on some research data from ABS and includes postcodes  
• Includes one attention grabbing, appropriate graphic  
• Outlines an example of a government response to the issue  
• Concludes the article with a positive piece of information |
| 3-4 | • Includes limited interviews from sources across either urban, regional and remote communities using quotations  
• Focuses on some research data from ABS and includes postcodes  
• Includes one attention grabbing, appropriate graphic  
• Outlines an example of a government response to the issue  
• Concludes the article with a positive piece of information |
| 1-2 | • Includes minor interviews from sources across either urban, regional and remote communities using no quotations  
• Focuses on some research data from ABS and excludes postcodes  
• Includes non-relevant/ inappropriate graphic  
• Provides some information about government responses |

**Differentiation**

**Evaluation**
Website evaluation: Criteria

Title of website: 
URL: http://

How did you locate this site you are evaluating?

<table>
<thead>
<tr>
<th>DESIGN FEATURES</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Is well-organised and is easy to navigate</td>
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<tr>
<td>• Contains an explanation of what the page is about</td>
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<tr>
<td>• Contains useful information presented in an accessible format</td>
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<tr>
<td>• Contains tables and/or graphics which are readable and load easily</td>
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<tr>
<td>• Is visually interesting with pictures, colour, sound and/or video clips</td>
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<th>EASE OF USE</th>
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<tr>
<td>• Loads quickly and has an easily understood front page</td>
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<tr>
<td>• Information can be easily accessed within the site and there are links back to the original page</td>
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<tr>
<td>• Offers search engines and/or help options (such as a site map) to make for ease of navigation through the site</td>
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<tr>
<td>• Distinguishes clearly between internal and external links</td>
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<td>• Has a suitable title which explains what the site is all about</td>
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<tr>
<td>• Has meaningful content which is useful for the intended purpose</td>
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<tr>
<td>• Information is easy to read</td>
<td></td>
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<tr>
<td>• Content is grammatically correct and spelling is correct</td>
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<tr>
<td>• Content is current (up to date)</td>
<td></td>
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<tr>
<td>• Has links to external sites which are relevant and useful</td>
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<tr>
<td>• Includes pictures which contribute to the overall appearance and which are relevant and usable</td>
<td></td>
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<thead>
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<th>CREDIBILITY</th>
<th></th>
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<td>• Includes information about the author (e.g. contact details)</td>
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<tr>
<td>• Includes a recent date when the site/page was last updated</td>
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<tr>
<td>• Includes references or links to sources used in developing the site</td>
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<tr>
<td>• Does not inappropriately request fees or names and addresses</td>
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<tr>
<td>• Does not request that you buy something</td>
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<tr>
<td>• Does not include advertising which takes a long time to load</td>
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| ADDITIONAL COMMENTS | |

This evaluation is based on one retrieved from: http://www.sfc.wcape.school.za/Webeval.sfcj.htm
STAGE 5 GEOGRAPHY: Sustainable Biomes

Key inquiry questions
- What are the main characteristics that differentiate the world's biomes?
- How do people use and alter biomes for food production?
- Can the world's biomes sustainably feed the world's population?
- What strategies can be used to increase global food security?

Overview
Students:
- examine the physical characteristics and productivity of biomes
- examine the correlation between the world’s climatic zones and spatial distributions of biomes and their capacity to support food and non-food agricultural production
- analyse the impact humans have on biomes in an effort to produce food and increase agricultural yields
- examine population trends and projections from Australia and across the world and forecast future food supply-and-demand issues
- investigate challenges to food production are explored and management strategies.

Outcomes
A student:
- explains the diverse features and characteristics of a range of places and environments GE5-1
- explains processes and influences that form and transform places and environments GE5-2
- analyses the effect of interactions and connections between people, places and environments GE5-3
- assesses management strategies for places and environments for their sustainability GE5-5
- acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-7
- communicates geographical information to a range of audiences using a variety of strategies GE5-8

Syllabus references

Teaching and learning activities
Inquiry questions: For each key inquiry question, students are encouraged to design their own inquiry questions as a subset in order to complete the geographical inquiry process which forms the bases of these teaching and learning sequences.

Assessment: The strategies require students to demonstrate their learning and are all either assessment for learning or assessment as learning activities. Some activities might be selected and included in a school assessment schedule for assessment of learning.

Biomes
Students:
- investigate the distribution and physical characteristics of biomes (ACHGK060)
- examination of the spatial distribution of biomes
- identification of biomes

Biomes
Changing biomes
Biomes produce food
Learning sequence 1

Key inquiry question:
used to produce food, industrial materials and fibres

Changing biomes
Students:
• investigate the human alteration of biomes to produce food, industrial materials and fibres and the environmental effects of these alterations, for example: (ACHGK061)
  • examination of human alterations to the physical characteristics of biomes agriculture, land terracing, irrigation, mining
  • assessment of environmental impacts of human alterations to biomes
  • discussion of successful sustainability strategies that minimise environmental impacts

Biomes produce food
Students:
• investigate environmental, economic and technological factors that influence agricultural yields in Australia and across the world, for example: (ACHGK062)
  - examination of how environmental factors influence agricultural yields
  - discussion of economic factors affecting agricultural yields
  - commercialisation of agriculture
  - explanation of how technology is used to increase agricultural yields

Challenges to food production
Students:
• investigate environmental challenges to food production for Australia and

• How do environments function? (from Environmental Change and Management)

Teacher introduction – introduce students to:
   a) the four interacting natural environment spheres: biosphere, atmosphere, hydrosphere and lithosphere and their corresponding processes
   b) ecosystems including a simple model
   c) biomes*.

*Note that for the purposes of the syllabus, biomes and natural environments are synonymous, with the exception of anthropogenic biomes- or predominantly human altered terrestrial biomes, and this can be seen in the table below. The focus on the syllabus, is, however, the natural, climate related biomes.

Key inquiry question:
• What are the main characteristics that differentiate the world’s biomes?

You have been invited by an IT company to design a virtual fieldwork excursion to a biome, with a focus on one natural biome in particular. The fieldwork will be aimed at Stage 5 students and can be in any form, but will include a summary of the work researched below.

Your task is to form groups and decide on the biome that you are going to research and use as the basis of your virtual fieldwork (i.e. aquatic or land or ice). For example:

<table>
<thead>
<tr>
<th>biomes</th>
<th>aquatic</th>
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<tbody>
<tr>
<td></td>
<td>oceans</td>
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<tr>
<td></td>
<td>rivers</td>
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<tr>
<td></td>
<td>coral reefs</td>
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<tr>
<td></td>
<td>wetlands</td>
</tr>
<tr>
<td>land</td>
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<tr>
<td>(terrestrial)</td>
<td>rainforests</td>
</tr>
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<td></td>
<td>tundra</td>
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<tr>
<td></td>
<td>woodlands</td>
</tr>
<tr>
<td></td>
<td>deserts</td>
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<tr>
<td></td>
<td>coasts</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Antarctic</em>*</td>
<td>ice</td>
</tr>
<tr>
<td>anthropogenic*</td>
<td>dense settlements</td>
</tr>
<tr>
<td></td>
<td>villages</td>
</tr>
<tr>
<td></td>
<td>croplands</td>
</tr>
<tr>
<td></td>
<td>forested lands</td>
</tr>
</tbody>
</table>

**Antarctica’s biome can be classified as an “ice biome” but more recently it is known as being its own unique biome.

Each member of the group will choose an ‘area of expertise’ from below. They will research this area, covering the points outlined and devise that part of the virtual fieldwork that teaches students about it.

Remember that source material has to be evaluated for reliability or bias before being used.

The areas of expertise to be selected and information to be covered by individual group members include the:

a) Spatial distribution of the specific biome
other areas of the world, for example: (ACHGK063)
- description of the impact of environmental challenges on food production
- assessment of the extent to which climate change can affect the capacity of countries to increase food production

**Food security**

Students:
- investigate the capacity of the world’s biomes to achieve sustainable food security for Australia and the world, for example: (ACHGK064)
  - assessment of the capacity of biomes to produce food into the future
  - analysis of population projections to predict future demand for food
  - examination of sustainable practices used to achieve food security
  - discussion of the potential for Australia to contribute to global food security
- i. Locate the spatial distribution of the biome on a map of the world.
- ii. Identify the physical characteristics of the biome.
- iii. Describe the typical climate of the biome.

**b) Flora and fauna of the specific biome**
- i. Identify some of the unique flora and fauna found in the biome.
- ii. Describe how the flora and fauna have adapted to the physical characteristics and climate of the biome.
- iii. Explain the relationship between the flora and fauna within the biome.

**c) Human interactions with the specific biome**
- i. Identify and describe one community that lives within, or as part of, the biome. If possible, choose a community that is indigenous to this biome. In your response, provide some data about population numbers, lifestyle and use of the biome in everyday life, as well as a climatic graph to indicate the typical climatic conditions for this community.
- ii. Locate the spatial distribution of the biome on a map of the world.
- iii. Identify the unique flora and fauna found in the biome.
- iv. Describe how the flora and fauna have adapted to the physical characteristics and climate of the biome.
- v. Explain the relationship between the flora and fauna within the biome.

**d) Resources of the biome**
- i. Identify the resources that come from the chosen biome.
- ii. List, and give reasons for, industries that rely on this biome.
- iii. For two resources identified, outline the processes that lead to their formation.
- iv. Summarise the benefit of each of the resources to you, including the properties of the resources.

**e) Changing biome**
- i. Describe the alterations that have been made to the physical characteristics of the biome, because of human activity.
- ii. Assess the consequences of these alterations for the biome.
- iii. Suggest a number sustainable strategies that could be used which would reduce the impact of the alterations on the biome.

Now, when you have the information, draft the virtual fieldwork concept, consider factors like:
- what are the main ideas within each area of expertise
- how the students are going to learn
- set up and design
- what electronic equipment will be required for others to undertake the virtual fieldwork.

Once the virtual fieldwork has been designed and implemented, each group will ‘go’ on a number of virtual biome excursions. Students will allocate marks for each based on their experiences. Half of the mark will be for information learned, and the other half will be based on how well the virtual fieldwork was designed.

**Discuss the final marks as a class. Students can be asked to discuss the experience in terms of assessment as learning**

**Biomes produce food**

**Learning sequence 2**
Key inquiry question:
• How do people use and alter biomes for food production?

Teacher introduction: Discuss/review general examples of social, technological, economic, political, environmental, and physical factors when researching from a geographical point of view.

Class collaboration: research and create a visual representation to illustrate the factors that influence agricultural yields in the world and show specific Australian examples within the representation.

Food security

Report for Department of Agriculture*
(* Possible assessment task - see outcomes, rubric and marking criteria at the end of this document.)

*You have been asked to develop a case study based report for the Department of Agriculture about the factors that influence food production in Australia and throughout the world; and how these factors have the potential to increase or decrease food security (challenges to food production). You will use a specific product as an example. The Department of Agriculture has asked that the report focus particularly on technological factors and climatic challenges related to food production. This report will be provided to inform future generations of farmers not just in Australia, but throughout the world.

Teachers’ note: This activity could first be provided to students as a class case study, using a product produced in the Asia-Pacific region, to demonstrate what is later expected of the task below.

To complete your report you will need to do a case study of one crop grown in Australia.
• Select an agricultural crop (e.g. rice, wheat, oranges) that is grown in Australia.
• Identifies where in Australia the crop is produced, and used, including giving an overall case study of the geography of the specific crop you have chosen (map of the region, statistical data).
• Demonstrate the supply chain of the crop from the farm to the table in written or graphical form.
• Discuss Australia’s use of the crop (e.g. Export/domestic consumption).
• Outline the various factors that specifically influence the yield, positively and negatively, of your chosen crop.
• Identify and discuss how technology is assisting to address the challenges being faced by the agricultural sector in producing this crop.
• Investigate, in greater detail, the environmental challenges of producing this crop (climate, water, soil, topography).
• Explore the various strategies that have been introduced to improve the agricultural yields of the crop.

Your report must be very succinct and should be no longer than 1500 words, excluding graphs and maps, and must use the following structure:
Challenges to food production

Learning sequence 3

Key inquiry questions:
• Can the world’s biomes sustainably feed the world’s population?
• What strategies can be used to increase global food security?

Question and Answer (Q&A) - Food Security Summit

You have been invited, in your capacity as an expert in your chosen field (see below), to attend a Global Forum that is only held once a decade. This time, the forum will focus on rice growing. The F²S²R – Future Food Security Summit – Rice, aims to assess the current capacity of biomes to produce this food and to predict and analyse issues that may occur in the next decade.

Your teacher will allocate, or allow you to select, one of the following expert roles:

**Australian farmer** – runs a well-established dry rice farm in the Leeton, in the Riverina region of NSW. Has export contracts with Singapore, Brunei and New Zealand importers.

**Asian farmer** – located on the island of Lombok in Indonesia. Has been invited by Australian Government to share his/her traditional sustainable rice growing practices that have ensured consistent crop yields despite increasing competition for resources.

**Aboriginal elder** – in cooperation with the Asian farmer, is outlining to the forum how traditional sustainable practices could be more beneficial in terms of export markets, product yields and land quality.

**Department of Agriculture scientist** – wants to introduce a new fertiliser that involves a genetically modified product that contradicts traditional methods and could impact on export contracts.

**WHO representative** – wants to ensure the health and wellbeing of the regional and global population.

**Global Seed Bank representative** – has grant money to give to participants with good ideas who work with the aims and objectives.
outlined by the Food and Agricultural Organization of the United Nations (FAO).

**CSIRO representative** – cranky because she/he is being overlooked and their expertise, time and money has not been valued.

**Non-government organisation (NGO) representative** – wants the production of rice to double as this will lead to a reduction in grain prices to people ensuring a more accessible product.

**Food and Agricultural Organization of the United Nations (FAO) representative** – whose role is to coordinate trade agreements between the main stakeholders.

**Hindu priest** – outlines the cultural perspective of rice in Hinduism over time and place, and needs to ensure its security into the future.

Your role is to negotiate with other experts to devise a collaborative five point plan that will predict:

1. the demand for rice in future
2. the capacity of Australia and the world to produce rice into the future
3. two new sustainable practices that may increase rice security
4. the role of Australia in contributing to global food/rice security
5. where future food/rice demand is most likely to be needed (in Australia and the world).

Before negotiation commences, you must prepare an introductory document that summarises, in general, food security in Australia in comparison to global food security. The summary will serve as a prelude to your five-point plan.

The summary should:

- contain information from a variety of sources
- be clear and concise
- demonstrate a knowledge and understanding of definitions related to food security.
- conclude with no more than ten concerns that you will discuss with other experts and that will inform the negotiated five point plan.

You should add to your introductory document a one-page biography of your role as an expert in this area, as well as a paragraph or two about the importance of rice farming now and for the future. This will require research using a variety of source material that needs to be acknowledged.

Finally, your document will include a draft five-point plan that you will need to take at the summit, for negotiation.

SUMMIT: You are, as a one of the chosen experts, to talk and negotiate with the other experts in the field about your concerns for rice farming and the validity of your draft five-point plan. Make any adjustments to your plan as a consequence of your negotiation and what you have learned from the other experts.

Finalise your five-point plan.

*Teachers’ note: students should discuss all plans and conclude with a class consensus about the future issues and concerns of sustainable rice growing, and the link to global food security.*
Resources

**Learning sequence 1**
- [http://www.blueplanetbiomes.org/world_biomes.htm](http://www.blueplanetbiomes.org/world_biomes.htm)
- [http://www.wfp.org/students-and-teachers/classroom-activities](http://www.wfp.org/students-and-teachers/classroom-activities)
- [http://wwf.panda.org/about_our_earth/teacher_resources/webfieldtrips/major_biomes/](http://wwf.panda.org/about_our_earth/teacher_resources/webfieldtrips/major_biomes/)
- [https://www.scootle.edu.au](https://www.scootle.edu.au)

**Learning sequence 2**
- [http://www.foodsecuritynews.com/What-is-food-security.htm](http://www.foodsecuritynews.com/What-is-food-security.htm)

Geographical terminology

**Review**
- altitude
- latitude
- longitude
- precipitation
- habitat
- sustainability
- climatic graph

**New**
- atmosphere
- biosphere
- lithosphere
- hydrosphere
- biome
- anthropogenic biome
- aquatic biomes
- terrestrial biomes
- natural environments
- spatial distribution
- climate
- biodiversity
- agricultural yield
- agricultural productivity
- Net Primary Productivity (NPP)
- environmental impact
- agricultural yield
- “food bowl”
- food security
- Green Revolution
- sustainable production
- High Yielding Varieties
- crop yield
- environmentally sustainable
- sustainable agriculture
### Geographical concepts

The following **geographical concepts** have been integrated into the teaching and learning sequence:

**Place:** the significance of biomes and their specific characteristics; the reasons why crop production differs between biomes; the reasons why food security differs between places

**Space:** the spatial distribution of biomes and how they are altered and managed; the spatial distribution of specific crops in Australia and throughout the world; the spatial distribution of the consumption of food throughout the world

**Environment:** the environmental impacts of the use of technology on crops produced; the important interrelationships between humans and biomes for the production of food

**Interconnection:** the interconnections between biomes, food production and the environment; the interconnections between food security and cultures

**Scale:** the impact of technology and environmental factors on biomes at a variety of scales; the difference in food security at a variety of scales

**Sustainability:** the sustainable production of food; the sustainable management of biomes

**Change:** changing biomes over time; the factors that have led to an increase or decrease in crop yields; changing rates of food consumption over time.

### Geographical inquiry skills

The following **geographical inquiry skills** have been integrated into the unit:

**Acquiring geographical information**
- develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts (ACHGS063, ACHGS072)
- collect, select, record and organise relevant data and geographical information, using ethical protocols, from a variety of appropriate primary data and secondary information sources (ACHGS064, ACHGS073)

**Processing geographical information**
- evaluate information sources for their reliability, bias and usefulness (ACHGS065, ACHGS074)
- represent multi-variable data in a range of appropriate forms, with and without the use of digital and spatial technologies (ACHGS065, ACHGS074)
- represent the spatial distribution of geographical phenomena on maps that conform to cartographic conventions, using spatial technologies as appropriate (ACHGS066, ACHGS075)
- evaluate multi-variable data and other geographical information using qualitative and quantitative methods and digital and spatial technologies as appropriate to make generalisations and inferences, propose explanations for patterns, trends, relationships and anomalies, and predict outcomes (ACHGS067, ACHGS076)

### Geographical tools

The following **geographical tools** have been integrated into the unit:

**Maps**
- relief maps, political maps, topographic maps, choropleth maps, flowline maps, cadastral maps, thematic maps, isoline maps, land use maps, précis maps, special-purpose maps, cartograms, synoptic charts
- maps to identify direction, scale and distance, area and grid references, degrees and minutes of latitude and longitude, bearings, aspect, altitude, area, density, contour lines, gradient, local relief

**Fieldwork**
- observing, measuring, collecting and recording data, developing and conducting surveys and interviews
- fieldwork instruments such as weather instruments, vegetation identification charts, compasses, clinometers, GPS, GIS or remote sensing

**Graphs and statistics**
- data tables, pie graphs, column graphs, compound column graphs, line graphs, scatter graphs, climate graphs, population profiles, multiple tables and graphs presented on a geographical theme, statistics to find patterns and trends, and to account for change

**Spatial technologies**
- virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS), remote sensing data, augmented reality

**Visual representations**
- photographs, aerial photographs, illustrations, flow charts, annotated diagrams, multimedia, field and photo sketches.
ACHGS076) • apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative perspectives (ACHGS068, ACHGS077)
• identify how geographical information systems (GIS) might be used to analyse geographical data and make predictions (ACHGS069, ACHGS078)

Communicating geographical information
• present findings, arguments and explanations in a range of appropriate communication forms selected for their effectiveness and to suit audience and purpose, using relevant geographical terminology and digital technologies as appropriate (ACHGS070, ACHGS079)
• reflect on and evaluate the findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations; and explain the predicted outcomes and consequences of their proposal (ACHGS071, ACHGS080).

cartoons, mind maps, web tools

Assessment task and rubric

Outcomes
• assesses management strategies for places and environments for their sustainability GE5-5
• acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-7
• communicates geographical information to a range of audiences using a variety of strategies GE5-8

Report for Department of Agriculture

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potential to increase or decrease food security (challenges to food production). You will use a specific product as an example. The Department of Agriculture has asked that the report focus particularly on technological factors and climatic challenges related to food production. This report will be provided to inform future generations of farmers not just in Australia, but throughout the world.

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- Demonstrate the supply chain of the crop from the farm to the table in written or graphical form.
- Discuss Australia’s use of the crop (e.g. Export/domestic consumption).
- Outline the various factors that specifically influence the yield, positively and negatively, of your chosen crop.
- Identify and discuss how technology is assisting to address the challenges being faced by the agricultural sector in producing this crop.
- Investigate, in greater detail, the environmental challenges of producing this crop (climate, water, soil, topography).
- Explore the various strategies that have been introduced to improve the agricultural yields of the crop.

Your report must be very succinct and should be no longer than 1500 words, excluding graphs and maps, and must use the following structure:

- table of contents
- list of maps, graphs and tables
- introduction to the report - what does this report aim to tell farmers
- method – how and where you obtained your information – for example through interviews, internet, newspaper articles etc.
- findings – report these using sub-headings such as “Factors that influence agricultural yields of [chosen crop]” and “Environmental challenges of producing [chosen crop]”.
- conclusion – what your investigation found out for farmers, especially in light of environmental challenges
- recommendations – any recommendations that could be made to farmers of the future to ensure sustainability of the chosen crop
- references – a list of the information sources that you used in the report (ensure you check for validity and bias before you using them)
- appendix – any additional information that is not used in your report but is still vital.

| 9-10 | Provides comprehensive geographical information about Australian locations of production and use. |
|      | Investigates environmental challenges facing producers in great detail and provides supporting evidence. |
|      | Identifies current strategies that have been introduced to improve agricultural yields of the product. |
|      | Discusses in detail the advances used to address challenges facing the agricultural sector. |

| 7-8  | Provides detailed geographical information about Australian locations of production and use. |
|      | Investigates environmental challenges facing producers in detail and provides supporting evidence. |
|      | Identifies current strategies that have been introduced to improve agricultural yields of the product. |
|      | Discusses the advances used to address challenges facing the agricultural sector. |
| 5-6 | Provides some geographical information about Australian locations of production and use.  
|     | Investigates some environmental challenges facing producers and provides supporting evidence.  
|     | Identifies some current strategies that have been introduced to improve agricultural yields of the product.  
|     | Discusses some of the advances used to address challenges facing the agricultural sector.  |
| 3-4 | Provides basic geographical information about Australian locations of production and use.  
|     | Investigates some environmental challenges facing producers and provides limited supporting evidence.  
|     | Identifies a few current strategies that have been introduced to improve agricultural yields of the product.  
|     | Discusses a few of the advances used to address challenges facing the agricultural sector.  |
| 1-2 | Provides limited geographical information about Australian locations of production and use.  
|     | Identifies some environmental challenges facing producers.  
|     | Identifies limited strategies that have been introduced to improve agricultural yields of the product.  
|     | Provides limited information about advances used to address challenges facing the agricultural sector.  |

**Differentiation**

**Learning sequence 3**

Use the class consensus to draft an article to a newspaper, which outlines the discussions and perspectives presented at F^2^S^2^R and concludes with future predictions for rice production in Australia.

**Evaluation**