 Contemporary land use

Focus area – Factors that shape the places

Content

* Factors that change environments
* Humans shape places

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**

Outcomes and other syllabus material referenced in this document are from:

* [Geography K-10 Syllabus](http://syllabus.nesa.nsw.edu.au/hsie/geography-k10/) © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2015

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 progress at various stages throughout the inquiry process.

Inquiry 1 – Natural vegetation of Australia

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.

Content

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

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 placed 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 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 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.
  + Does the information relate to the inquiry questions used to shape the investigation?
  + Has the issue been examined from other people’s perspectives?
  + Can conclusions be drawn about the positive and negative aspects of the issue?
  + 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](http://growthcentres.planning.nsw.gov.au/); [A Plan for Growing Sydney](http://www.planning.nsw.gov.au/Plans-for-Your-Area/Sydney/A-Plan-for-Growing-Sydney)
* Transport for NSW [Projects](http://www.transport.nsw.gov.au/projects)
* [Landcom](http://www.landcom.com.au)
* [SIXMaps](https://maps.six.nsw.gov.au)

Concepts, inquiry skills and tools

Geographical concepts

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

* 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 the spaces that we live in e.g. how people organise and manage spaces in their local environment.
* Environment – the significance of the environment in 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.
* Interconnection – 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.
* 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 human characteristics of places.

Geographical inquiry skills

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

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 in a range of communication forms as appropriate (ACHGS038, ACHGS045)
* 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)

Geographical tools

The following geographical tools have been integrated into the unit.

Maps

* large-scale maps, small-scale maps, topographic maps, flowline maps
* maps to identify location, latitude, direction, distance, map references, spatial distributions and patterns

Fieldwork

* observing, measuring, collecting and recording data, conducting surveys and interviews
* fieldwork instruments such as measuring devices, maps, photographs, compasses, GPS

Graphs and statistics

* pictographs, data tables, column graphs, line graphs, climate graphs
* multiple graphs on a geographical theme
* statistics to find patterns

Spatial technologies

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

Visual representations

* photographs, aerial photographs, illustrations, flow diagrams, annotated diagrams, multimedia, web tools.