# Weather

Stage 1 geography.

Focus area – features of places.

## Content

Weather and seasons.

### Key inquiry question

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

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 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.

## Inquiry 1 – What is weather? What are seasons?

Students investigate the weather and seasons in their local area.

### Content

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, for example, leisure, farming

### Acquiring geographical information

Questions:

* Is the weather the same every day?
* Why do we need to predict the weather? (For example, 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, and 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, for example, 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, for example, ants, pets, wild birds take shelter, cows cluster.
	+ Do you personally feel different or notice a change? For example, frizzy hair.
	+ What does the moon look like? For example, clear and bright, or hazy.
	+ What can you smell? For example, the ‘smell’ of rain, smell of compost prior to a storm.
	+ What is smoke doing? For example, 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, for example, what was the hottest day? Windiest day?
* 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, for example, windy, raining, and 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:
	+ adjustments to living conditions
	+ effects on people (clothing, school uniform)
	+ effects on the environment (bushfire, drought)
	+ effects on leisure activities (football/netball in winter, cricket/swimming in summer)
	+ different might care for these places?

### 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.

## 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.

### Content

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, for example, 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

### Acquiring geographical information

Questions:

* 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](https://www.csiro.au/en/Research/Environment/Land-management/Indigenous/Indigenous-calendars/Gulumoerrgin) of the Darwin area, 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, for example, 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, including the effects on people and places.

### Communicating geographical information

Communicate – Students create a brief narrated slideshow 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.)

Respond – Create an illustrated seasonal calendar for the local area illustrated with nature’s signs.

## 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, for example, location and features of local places and other places in the world.
* Space – the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in, for example, where activities are located and how spaces can be organised.
* Environment – the significance of the environment in human life, and the important interrelationships between humans and the environment, for example, natural and human features of a place; daily and seasonal weather patterns of places.
* Interconnection – no object of geographical study can be viewed in isolation, for example, 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, for example, various scales by which places can be defined such as local suburbs, towns and large cities.

### Geographical inquiry skills

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

### 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)

### 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)

### 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)

### Geographical tools

The following geographical tools have been integrated into the unit:

* Maps – pictorial maps, large-scale maps, world map, globe.
* Fieldwork – observing, collecting and recording data, conducting surveys.
* Graphs and statistics – tally charts, pictographs, data tables, column graphs, weather data.
* Spatial technologies – virtual maps, satellite images.
* Visual representations – photographs, illustrations, diagrams.