



## Global Education – Learning Emphases

- Interdependence and globalisation
- Identity and cultural diversity

# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM YEAR 3: PLACES ARE SIMILAR AND DIFFERENT

Dr Susan Bliss

## Year 3 Level Description

*'Places are both similar and different'* continues to develop students' understanding of place by examining the similarities and differences between places within and outside Australia. The concept of place is developed through examining the major natural and human characteristics of Australia the Countries/ Places of Aboriginal and Torres Strait Islander Peoples, and Australia's neighbouring countries'

<http://www.australiancurriculum.edu.au/Geography/Curriculum/F-10?layout=3#page=3>

### Curriculum – Content Description:

- The location of Australia's neighbouring countries and their diverse characteristics (ACHGK016)
- The similarities and differences between places in terms of their type of settlement, demographic characteristics and the lives of the people who live there (ACHGK019)

### Elaborations

- Describing the similarities and differences between their local place and places in neighbouring

countries in their natural and human characteristics

### Physical/natural environment:

- located in SE Asia
- comprises of approximately 17,508 islands
- lying along the equator, it has a tropical climate – hot, wet and humid
- has wet and dry seasons (monsoon)
- contains at least 150 active volcanoes – has the largest number of active volcanoes in the world
- one of the Coral Triangle countries with the world's greatest diversity of coral reef fish



Hindu ceremony, Bali – Photograph: S. Bliss

### Physical/human interactions:

- environmental issues include: large-scale deforestation, wildfires, endangered species, over-exploitation of marine resources; air pollution, and unreliable water and waste water services.

### Human/built environment:

- over 238 million people – world's fourth most populous country
- 58% of the population lives on the island of Java – the world's most populous island
- capital city is Jakarta located on Java about 300 ethnic groups
- about 300 ethnic groups

# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM

## Geoactivities

1. Using newspapers, journals or the internet design a poster of images of Indonesia
2. Label the photographs
3. Identify the physical and cultural features on the photographs
4. ICT – Go to [http://www.asiaeducation.edu.au/curriculum\\_resources/geography/year\\_3\\_images\\_of\\_indonesia/images\\_of\\_indonesia\\_landing\\_page.html](http://www.asiaeducation.edu.au/curriculum_resources/geography/year_3_images_of_indonesia/images_of_indonesia_landing_page.html).
  - a. In pairs explain the similarities and differences between life in Indonesia and Australia.
  - b. Develop a class mind map that summarises what students learned about life in Indonesia.

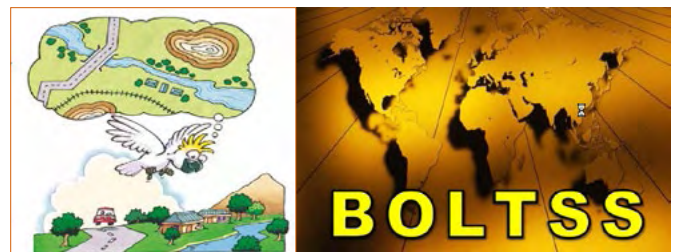
### Curriculum: Geographical inquiry and skills

- Develop *geographical questions* about the location of Australia's neighbouring countries and their diverse characteristics. For example: Where is Indonesia? Why is it called our neighbour? What are the similarities and differences between Australia's and Indonesia's climate? What are the similarities and differences on how people perceive Indonesia? What are the different views on protecting the Indonesian environment? What are the similarities and differences between places in terms of their type of settlement, demographic characteristics and the lives of the people who live there?
- *Collect and record relevant geographical data and information*, for example, by observing by interviewing, conducting surveys, measuring, or from sources such as maps, photographs, satellite images, the media and the internet
- Represent data by *constructing tables and graphs*
- Represent the location of places and their features by *constructing large-scale maps* that conform to cartographic conventions including scale, legend, title and north point, and describe their location using simple grid references, compass direction and distance
- Interpret geographical data to *identify distributions and patterns and draw conclusions*
- Present findings in a *range of communication forms*, for example, written, oral, digital, graphic, tabular, and visual, and use geographical terminology
- Reflect on their learning to *propose individual action* in response to a contemporary geographical challenge and *identify the expected effects of the proposal*

### Curriculum: Maps and Globe

- Represent the location of places and their features by constructing large-scale maps that conform to cartographic conventions including scale, legend, title and north point, and describe their location using simple grid references, compass direction and distance (ACHGS022)
- using a globe to locate New Zealand, the Pacific Island nations, Papua New Guinea, Timor-Leste and **Indonesia**, labelling them on a map, and identifying the direction of each country from Australia

What should a map on Indonesia contain?



Source of sketches: *Keys to Geography* 2nd ed + CD, Australian Geography Teachers' Association, page 2, and <http://www.slideshare.net/yaryalitsa/boltss-mapping-geography>

Every map should have **BOLTSS**:

**B**order: line around it

**O**rientation: direction such as North (use of compass)

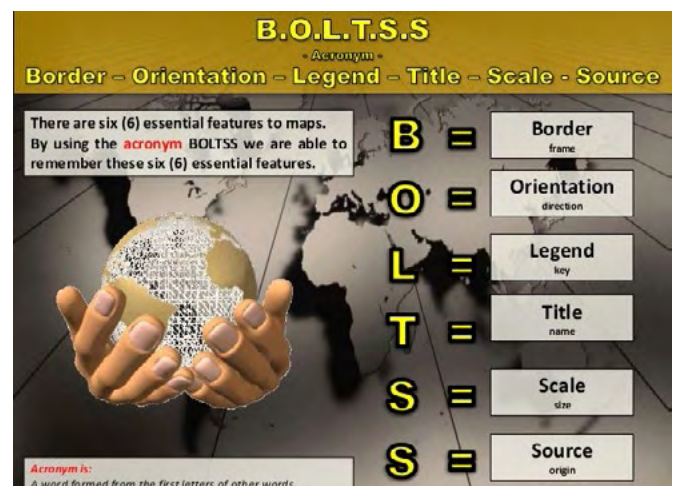
**L**egend: symbols such as green for trees and blue for rivers

**T**itle: name of map

**S**cale: measurement between the map and the real world. Is the map 100 or 20 times smaller?

**S**ource (sometimes included)

**Additionally information– maps should be neat and names printed**



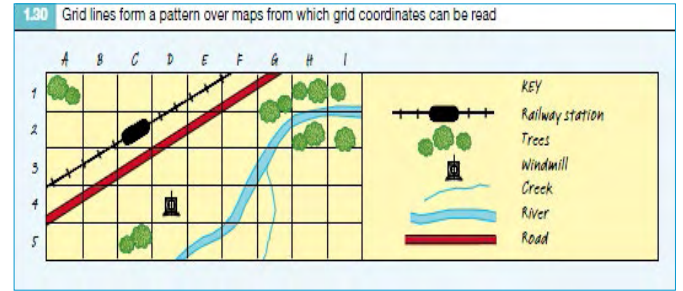
Source: <http://www.slideshare.net/yaryalitsa/boltss-mapping-geography>



# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM



Left: Ancient hand drawn map of Volpaia, Italy



Source of sketch: *Keys to Geography* 2nd ed + CD - Australian Geography Teachers' Association, page 16

## Teachers ICT

- **YouTube:** Map Essentials – <http://www.youtube.com/watch?v=E5ltL5J85cY>
- **Textbooks** – *Map Essentials Year 1 – Year 6*  
National Geographic Learning –  
<http://ngsptechnology.com/tabid/585/Default.aspx>

## Locating places –Where do you live?

**Alphanumeric** – when locating places on a map alphabet is along one line and numbers along the other line

In A1 there are 3 trees, D4 a windmill and C2 a railway station.

## Geoactivities

What is at?

1. F1.....
2. C5.....
3. C2.....
4. F4.....

## Location of Indonesia\* using simple grid references – alphanumeric



Source <https://maps.google.com.au/maps?q=indonesia+map&ie=UTF-8&hq=&hnear=0x2c4c07d7496404b7:0xe37b4de71badf485,Indonesia&gl=au&ei=stT2UoGKBY6jiQfNsYCIAQ&sqi=2&ved=0CCYQ8gEwAA>

## Geoactivities

\*Indonesia is outlined in brown on the map.

1. What is the name of the map?
2. What Indonesian city is located in C6?
3. What Indonesian city is located in D6?
4. What Sea is located in C6 and D6?
5. Name one Sea located between Indonesia and Australia
6. Is there a scale on the map? Yes/No
7. Why do you need to have a scale on a map?
8. If I wanted to travel to Indonesia from Australia name two types of transport you could take

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Answers:

- 1. Location of Indonesia using simple grid references
- 2. Jakarta
- 3. Surabaya
- 4. Java Sea
- 5. Timor Sea or Arafura Sea
- 6. Yes
- 7. To measure distance between places
- 8. Aeroplane or ship/boat

Indonesia’s main islands and cities



Source: <http://www.travelforum.se/images/countries/ID/illustrations/oversiktskarta-over-indonesien.jpg>



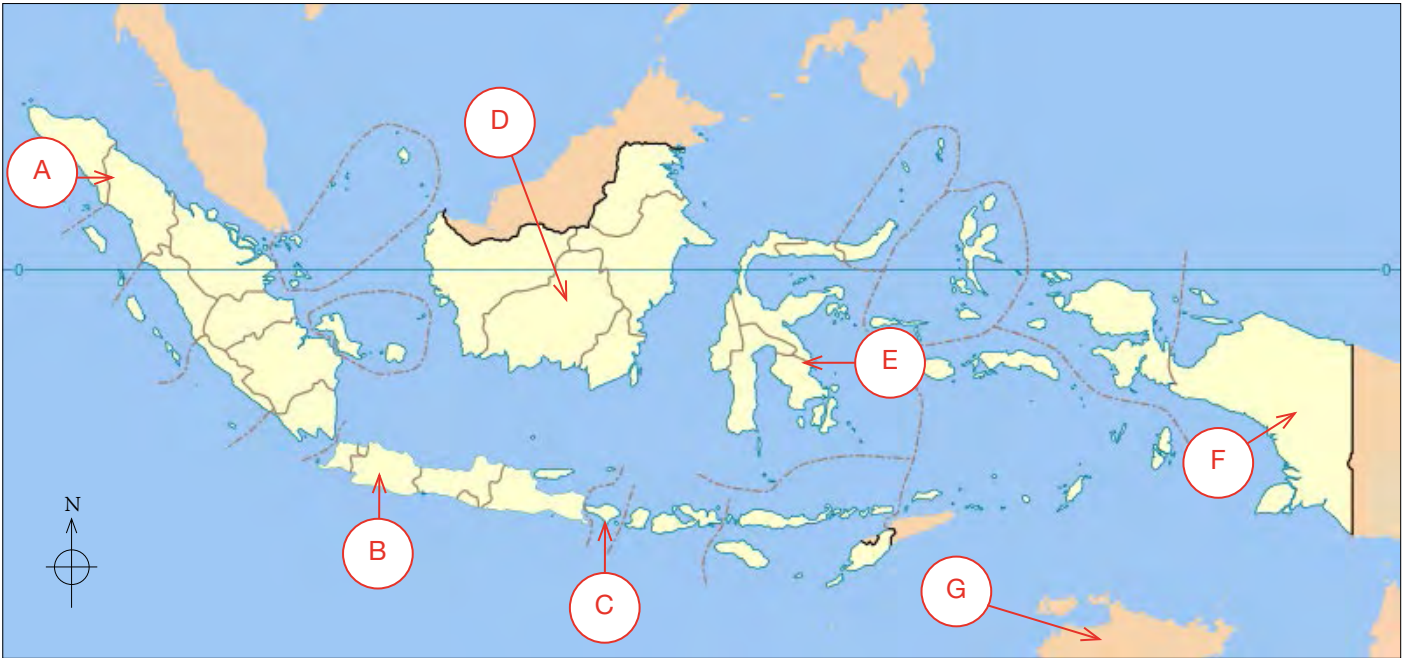
Detail from an 1897 English guide map to Surabaya.  
Source: Wikimedia Commons

Geoactivities

On the map (left) Indonesia is shaded green and the main islands are labelled in red.

- 1. Name five islands in Indonesia.  
Note Sumatra is generally spelt Sumatra.
- 2. On what islands are the following cities located:  
a. Denpasar, and b. Jakarta?

Map of Indonesia locating islands



Source: [http://commons.wikimedia.org/wiki/File:Indonesia\\_provinces\\_blank\\_map.svg](http://commons.wikimedia.org/wiki/File:Indonesia_provinces_blank_map.svg)

Geoactivities

Refer to the map above and label the following Indonesian Islands and Australia

- 1. A .....
- 2. B .....
- 3. C .....
- 4. D .....
- 5. E .....
- 6. F .....
- 7. G .....
- 8. Explain why Australia and Indonesia are called neighbours



# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM

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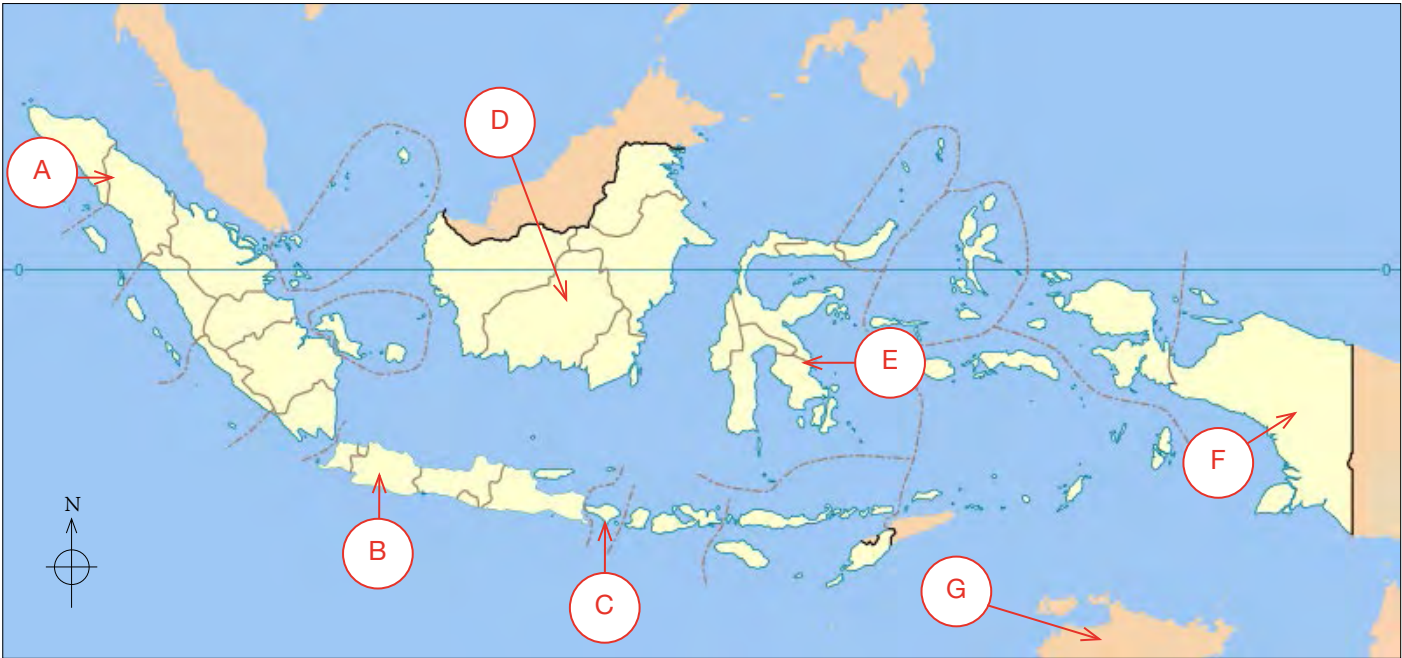
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# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM

## Latitude and longitude of Bali



Source: <http://nusaduabalitours.com/Map.php>

## Using ICT – let's visit Indonesia using Google Earth

Traditional map and a satellite image

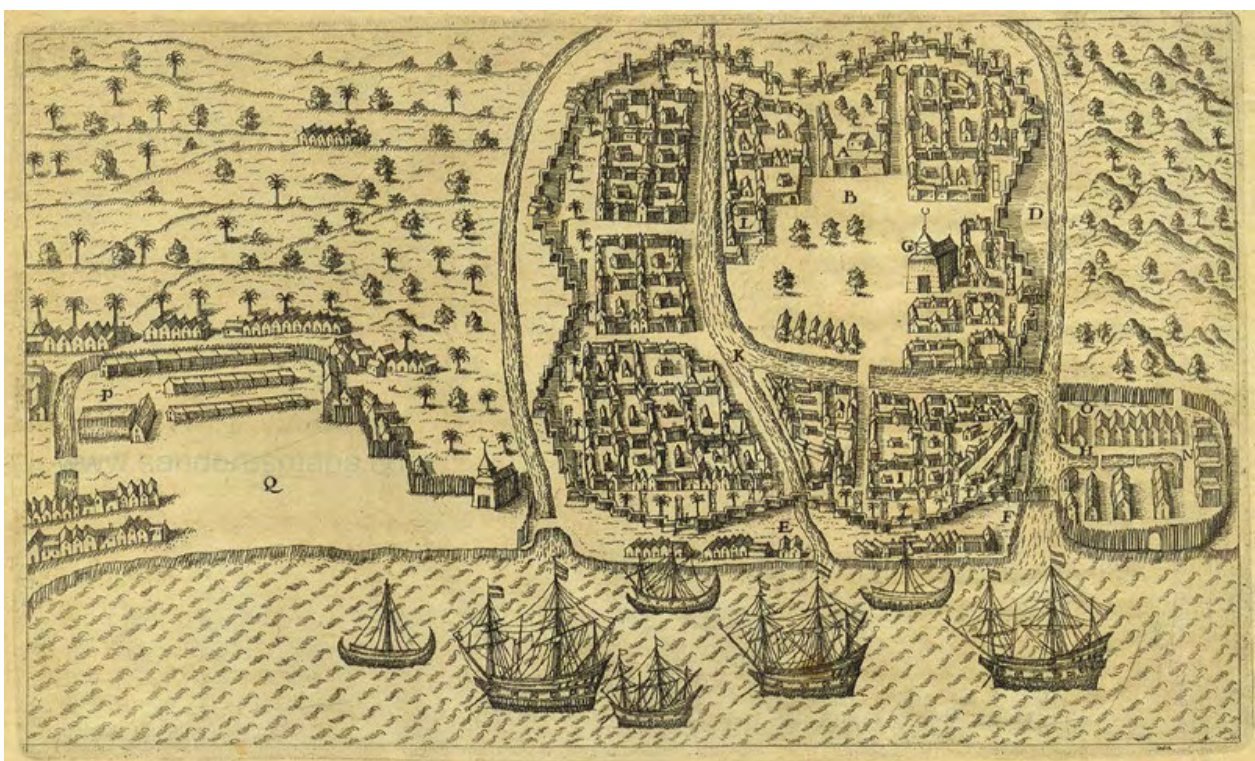


Google Map: Searchable map and satellite view of the Republic of Indonesia.

[http://www.nationsonline.org/oneworld/map/google\\_map\\_indonesia.htm](http://www.nationsonline.org/oneworld/map/google_map_indonesia.htm)

## Geoactivities

1. What is the name of the map?
2. Name the ocean to the south of Bali
3. What is the latitude of Bali?
4. What is the longitude of Bali?
5. Name one mountain (show as a triangle)
6. What one type of animal is found in Bali?
7. Name one temple
8. The dark brown shows high areas. Where are the high areas located in Bali? North or South?
9. What is the direction of Denpasar **from** Singaraja?



Map of Bantam by de Bry J.Th. From: *Indiae Orientalis Navigationes*. Frankfurt, 1598-1613. (Small Voyages). Source: Wikimedia Commons

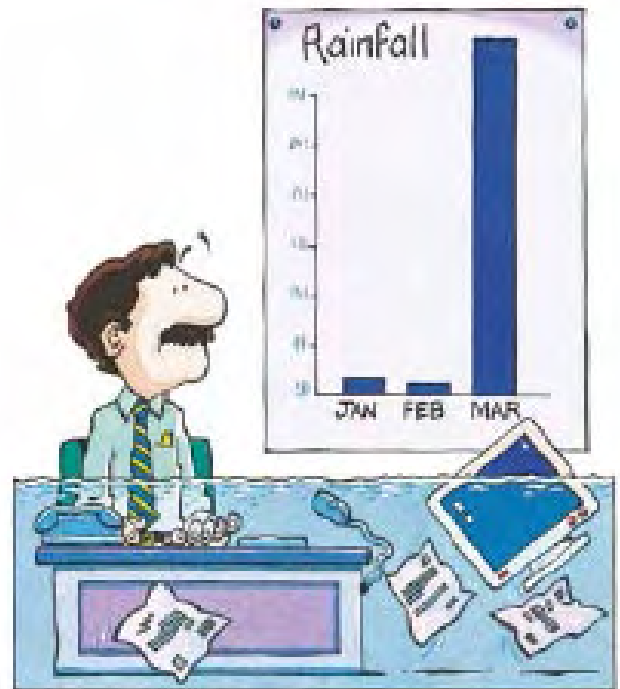
# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM

## Curriculum: Climate and weather

Content Descriptor: The main climate types of the world and the similarities and differences between the climates of different places (ACHGK017)

### Elaborations:

- discussing how weather contributes to a climate type
- identifying the hot, temperate and polar zones of the world and the difference between climate and weather
- identifying and locating examples of the main climatic types in Australia and the world, for example, equatorial, tropical arid, semi-arid, temperate, and Mediterranean.
- investigating and comparing what it would be like to live in a place with a different climate to their own place



Source of sketch: *Keys to Geography* 2nd ed + CD  
Australian Geography Teachers' Association, page 74

## Climate and weather: what's the difference?

**Weather** is short term (daily)

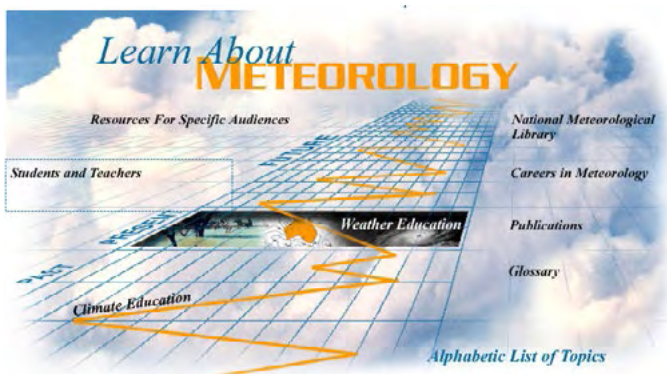
**Climate** is long term variations in temperature, precipitation, humidity and winds

Climate is what you expect; weather is what you get.

Indonesia has a tropical climate (hot) with a wet and dry season.

- in the wet season winds blow from the ocean bringing rain.
- in the dry season winds blow from land to the ocean

### Curriculum materials for teachers –



Bureau of Meteorology – [http://www.bom.gov.au/lam/Students\\_Teachers/learnact.htm#cm](http://www.bom.gov.au/lam/Students_Teachers/learnact.htm#cm)

## Weather instruments

Weather instruments are used to take measurements of temperature, wind, humidity, and rainfall to describe the local weather and climate such as

- *Temperature* – thermometer
- *Precipitation/rainfall* – rain gauge
- *Humidity* – wet and dry bulb thermometer or hygrometer
- *Wind direction* – wind vane
- *Wind speed* – anemometer
- *Air pressure* – barometer

## Geoactivities

- What is the difference between weather and climate?
- Research the internet and find a photograph or diagram of the six weather instruments. Present as a labelled poster
- Using a thermometer and rain gauge at school collect temperature and rainfall over a week. Draw your findings as a line graph for temperature and a column graph for rainfall
- Explain why the temperature varies between night and day and between summer and winter



# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM

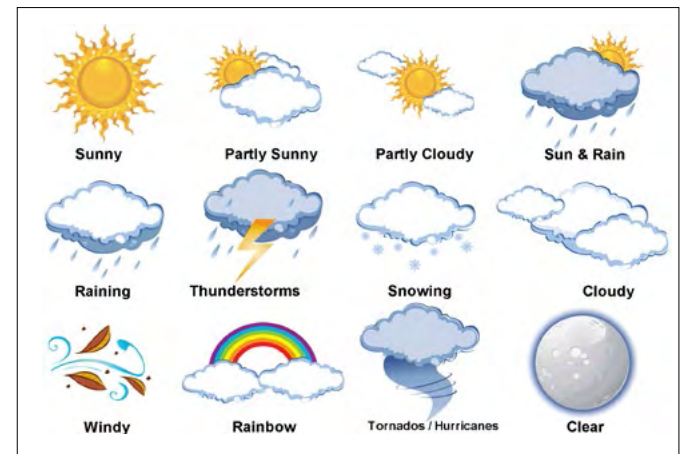
## Technology

Today satellites and computers inform us of what type of weather we may expect tomorrow or the next few days.



Clouds at 2,500 metre above the ground> Source: Wikimedia Commons

## Weather icons



Source: [http://childdrivenlearning.files.wordpress.com/2012/05/weather\\_icons-copy.gif](http://childdrivenlearning.files.wordpress.com/2012/05/weather_icons-copy.gif)



Source: [http://www.bbc.co.uk/bitesize/standard/geography/weather\\_climate/recording\\_data/revision/2/](http://www.bbc.co.uk/bitesize/standard/geography/weather_climate/recording_data/revision/2/)

## Geoactivities

- Refer to the diagram and explain how different sources of information are gathered on weather

## Geoactivities

- Using the icons draw the weather in your local area over a week

## Weather maps – Extra knowledge for teachers

**Isobars** – lines joining places with the same air pressure

**Air pressure** measured by a barometer in hectopascals 1008hPa

**High pressure system** – high air pressure in the centre is 1026hPa

**Rainfall** or precipitation which has fallen in the last 30 hours

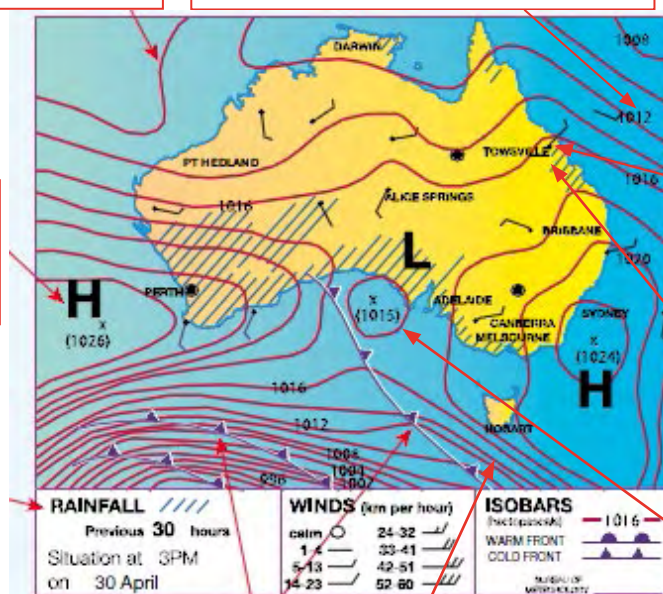
**Cold fronts** coming from Antarctica – looks like ice along a line. They bring cooler weather and rain. They move in the direction of the points i.e. from poles towards southern Australia

**Winds blow** in a clockwise direction around a low pressure system and anticlockwise direction around a high pressure system in the southern hemisphere. It is the opposite direction in the northern hemisphere

**Wind direction** and speed. You name a wind from where it comes from. The wind at Townsville comes from the NE. It is blowing between 5–13km/h

**Low pressure system** – lowest air pressure in the centre is 1015hPa

**Wind** – it is windier and seas are rougher when the isobars are closer together





# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM

## Geoactivities

- Using the newspaper or the internet collect a weather map over the last week
- What information do weather maps provide?
- Why are weather maps important to people, farmers and tourist resorts?

## Lowest and highest temperature for one day across Australia\*



Source: <http://resources1.news.com.au/images/2012/08/28/1226459/941877-channel-7-weather-map.jpg>

\* These figures are in degrees centigrade (°C)  
e.g. Brisbane 23°C

## Geoactivities

- Where is the highest temperature on the map? What part of Australia?
- Where is the lowest temperature on the map? What part of Australia?
- Where is it raining?
- What is the difference between the highest and lowest temperature in:
  - Sydney
  - Darwin
  - Hobart
  - Canberra
- Using a mobile phone, the internet or the newspaper describe the weather in your local area or nearby city on one day.
- Explain why weather forecasting is important.
- Why do you think weather forecasting is a difficult job?

## Indonesian weather map – 12 February 2014

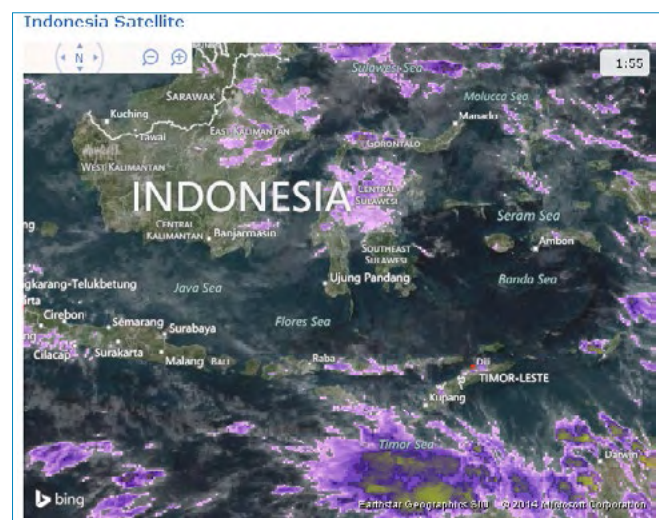


Source: <http://www.weather-forecast.com/maps/Indonesia>

## Geoactivities

- What is the date of this map?
- List four different maps on weather

## Indonesian satellite image of weather on the 12 February 2014\*



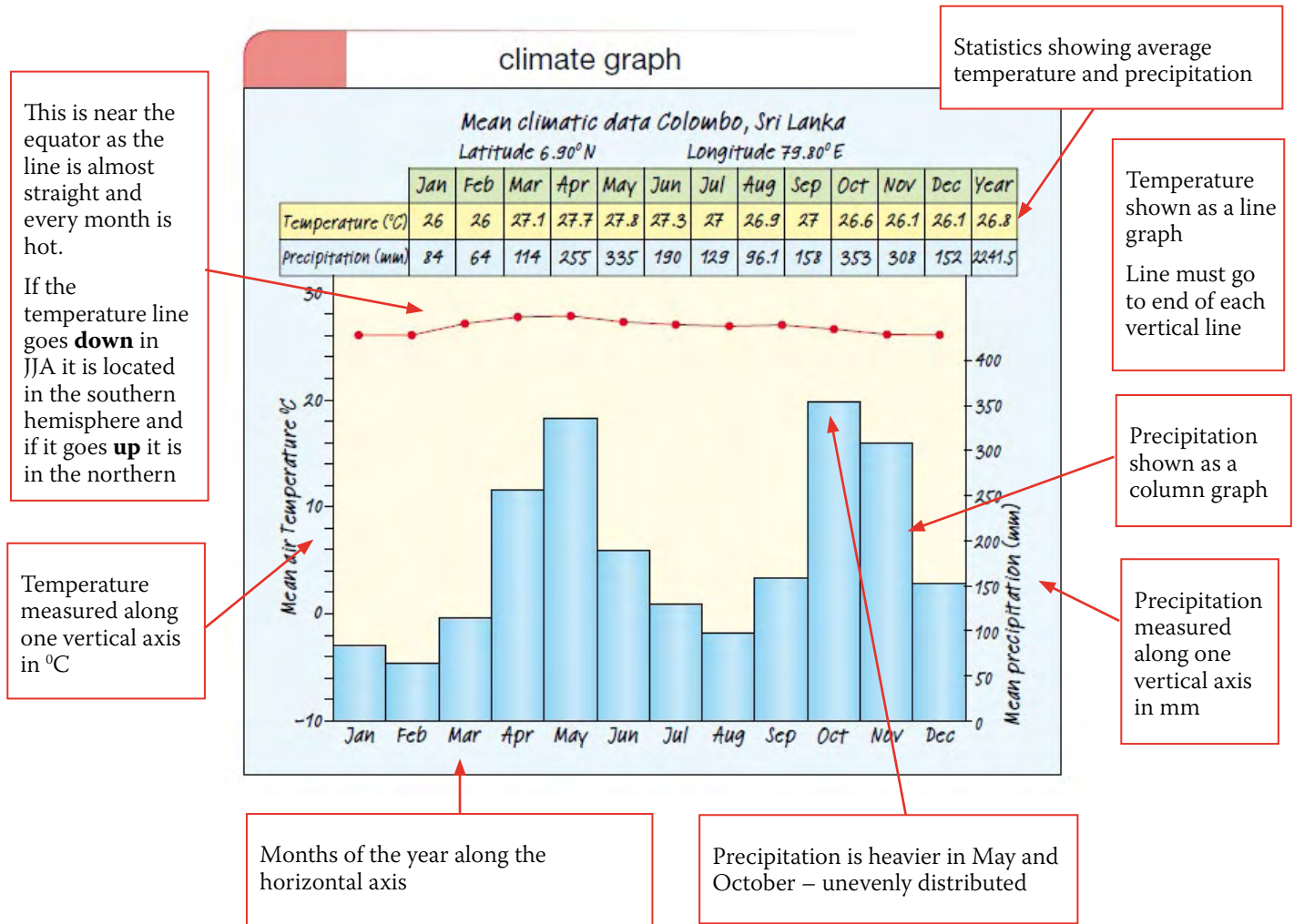
\* Purple areas are clouds

Source: <http://www.accuweather.com/en/id/national/satellite>

# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM

## Climate graph

Over time weather figures are collected and drawn as a climate graph.

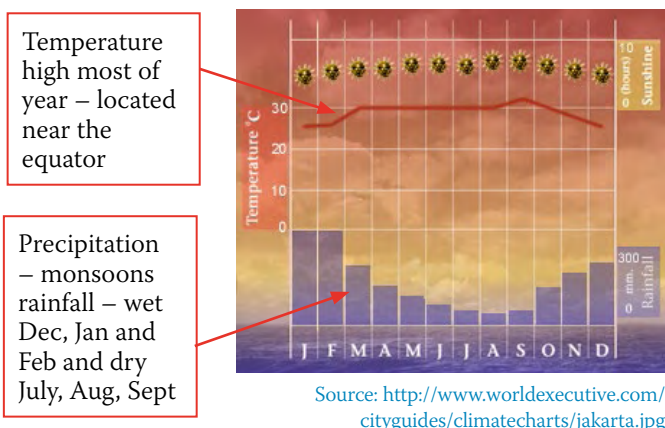


Source of map: *Keys to Geography* 2nd ed + CD – Australian Geography Teachers' Association, page 86

## Climate of Indonesia

The climate is equatorial, hot and very humid all year. The temperature varies between 24° and 34° C and the rate of humidity reaches 80%. There is a dry season (from April to October) and a rainy season (from November to March).

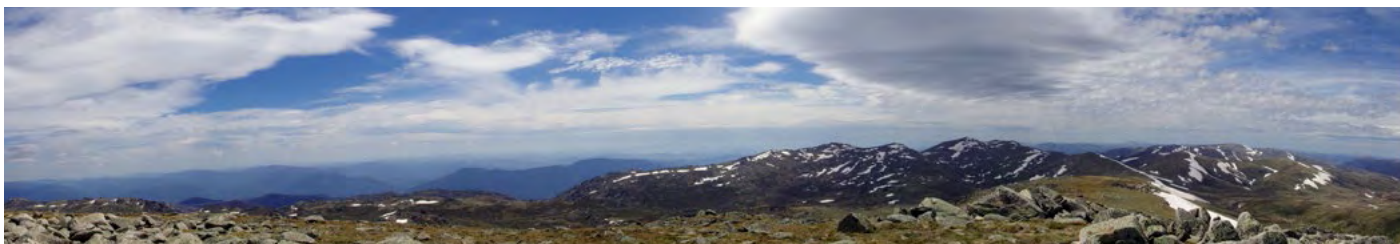
### Climate graph of Indonesia



Komodo National Park. Source: Wikimedia Commons



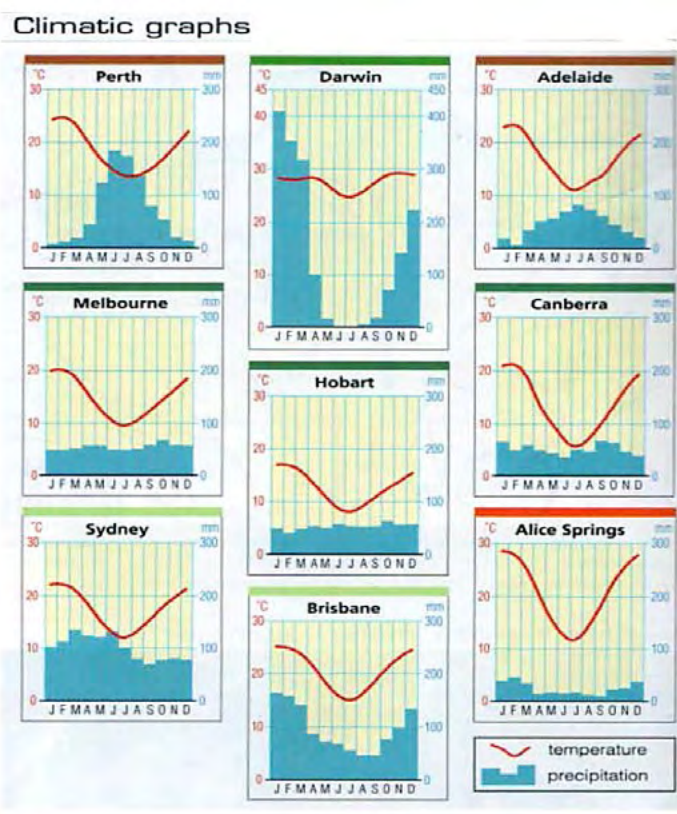
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Cloud formations from Mt Kosciuszko, NSW Source: Wikimedia Commons

## Climate regions and graphs for Australia

Connect the red line January and December temperature readings at both sides of the Y-axis for all the graphs..



Source: Macmillan Global Atlas, 3<sup>rd</sup> edition, p. 13 GeoWorld- Macmillan. Editor Susan Bliss

If the temperature line is lower during the middle months of the year (e.g June, July, August) the place is located in the southern hemisphere. If it is fairly high and even all year it is located near the equator

### Geoactivities

- When does Darwin receive most of its rain?
- When does Perth receive most of its rain?
- Why do you think there is little rain in Alice Springs?

### ICT

World climate – <http://www.worldclimate.com/>  
WorldClimate.com contains over 85,000 records of world climate data (historical weather averages) from a wide range of sources.



Uluru, Central Dessert of Australia Cumulus stratus clouds and a rainbow. Source: Wikimedia Commons

# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM



Brisbane CBD and the Story Bridge. Source: Wikimedia Commons

## Statistics and climate graph of Brisbane

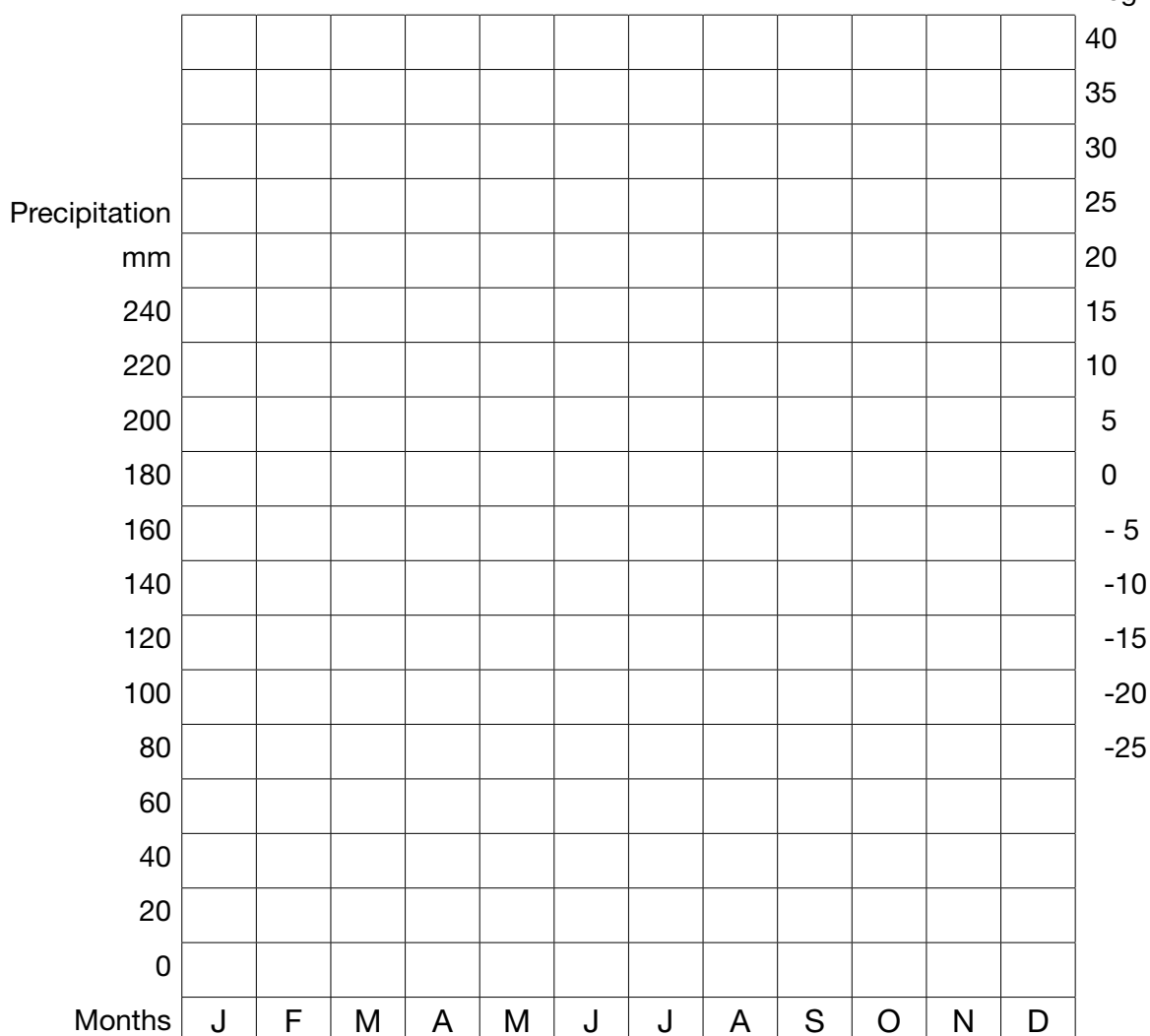
### Geoactivities

Complete the climate graph of Brisbane

J	F	M	A	M	J	J	A	S	O	N	D
25	25	23	21	18	16	15	16	18	21	23	24
167	161	144	88	69	69	54	48	48	74	95	129

LOCATION: Brisbane	ALTITUDE: –
LATITUDE: 27°S	LONGITUDE: 153°E

Temperature  
Deg C



Adapted from <http://8humanities.ais.wikispaces.net/Climate+template>



# INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM

## Geoactivities

Draw the following climate graphs for Jakarta and Sydney

### Jakarta

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Temperature °C	25.8	25.9	26.3	26.8	26.9	26.6	26.3	26.5	26.9	26.9	26.6	26.2	26.5
Rainfall mm	341.6	301.8	209.8	134.6	108.1	90.2	59.0	47.7	68.8	106.4	139.1	207.6	1821.0

### Sydney

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Temperature °C	22.1	22.1	21.0	18.4	15.3	12.9	12.0	13.2	15.3	17.7	19.5	21.2	17.6
Rainfall mm	103.4	111.0	131.3	129.7	123.0	129.2	102.8	80.3	69.3	82.6	81.4	78.2	1222.7

## Geoactivities

Refer to the graph of Jakarta:

- What is the hottest month?
- What month is the wettest month?
- What month is the driest month?
- What months would you prefer to travel to Indonesia? Give reasons for your answer.
- Compare the temperature and precipitation of Jakarta with Sydney in February

## Integrating teaching and learning activities with the unit on weather and climate

1. **Introduction:** How will I engage and interest the students? Photo literacy and empathy story – storms, floods, droughts, heat waves etc. Use examples from Indonesia and Australia.
2. **Pose geographical questions:** How does the weather impact on people and their activities?
3. **Video:** Short 5 minute video/YouTube on the weather from the news - severe storm etc (use a contemporary example). Ask questions. What? Where? How? Why?
4. **Trivial Pursuit:** fun game. What is the hottest, coldest, wettest, driest place on earth (handouts) e.g. Are these correct? Can you find better answers?
  - **Hottest Place** – Dalol, Denakil Depression, Ethiopia
  - **Coldest Place** – Plateau Station, Antarctica, annual average temperature (-56.7°C)
5. **Old myths about the weather.** True and false students fill in (handouts). Students may know some. There are plenty on the internet as *'weather has played an important part of everyday life. Before 'modern meteorology and weather forecasting, people found ways to predict the weather. Most of this was done through catchy phrases or poems that were easy to remember. Many of the weather sayings that developed from observations were focussed around farmers and sailors because of their direct ties to nature.'*  
<http://weatherstories.ssec.wisc.edu/sayings/sayings.html>
6. What are the **instruments** used to determine temperature and precipitation. Refer to weather instruments in the class and read the temperature for that moment. A later activity could involve model/construction/drawing of instruments.
7. Bring in the current **newspaper** with the predicted temperature and precipitation for the day. How does your figure taken in the classroom or at home differ to the figure in the newspaper? Discuss what is meant by average, maximum, minimum and range (difference between highest and lowest figures)



## INDONESIA – AUSTRALIAN GEOGRAPHY CURRICULUM

8. Ask key **geographical questions**: Why it is necessary to know the temperature and precipitation of a place? – relate to holidays (like snow for skiing), high temperature (swimming), wind (sailing), picnics, sporting activities and jobs (farming)
9. **How did the newspapers and TV get this information?** e.g. weather stations, Bureau of Meteorology, satellite
10. **Knowledge**: Explain the difference between weather (daily) and climate (long term)
11. Students complete a **climate graph** following instructions. Pencils, rubber, ruler, red pen and black/blue pen
  - a. Explain axis, temperature line graphs (dot in middle of month) and precipitation (column graph)
  - b. Move around room. Positive reinforcement. Helps determine those who require help.
  - c. When finished ink in details
12. **Group work**: Give each group a climate graph of a place in Indonesia and Australia. (co-operative learning) Address the following questions:
  - a. What would you wear to this place in different months?
  - b. What activities or problems of visiting this country at various times of the year?
  - c. Link graph to the tourism industry – When would you visit this place and why? e.g. Why is it cheaper to be a tourist at a ski resort in summer or a surfer at a coastal area in winter? Provide reasons
  - d. **Conclusion**: Students present conclusions from group discussion to the class either orally, written, photographs, web page etc
13. **Homework**: Literacy: Describe a climate graph – put it into words!!!!

### Other student centred activities:

Role play a flood in Indonesia or a drought in Australia

## Teachers – Geolinks

World climate – <http://www.climate-charts.com/>

Interactive climate map – [http://www.uwsp.edu/geo/faculty/ritter/interactive\\_climate\\_map/climate\\_map.html](http://www.uwsp.edu/geo/faculty/ritter/interactive_climate_map/climate_map.html)

Climate graphs for Australia – [http://www.bom.gov.au/cgi-bin/climate/cgi\\_bin\\_scripts/map\\_script\\_new.cgi?14903](http://www.bom.gov.au/cgi-bin/climate/cgi_bin_scripts/map_script_new.cgi?14903)

Satellite images – weather maps Australia – <http://www.bom.gov.au/weather/satellite/>

Weather maps Australia – <http://www.bom.gov.au/>

How to Make a Climograph – <http://www.youtube.com/watch?feature=endscreen&NR=1&v=YploPyRff-Y>

Drawing climate graphs – <http://www.youtube.com/watch?v=t8vAe4HcbAA>

National Geographic climate graph template – <http://images.nationalgeographic.com/wpf/media-live/file/getting-geographic-climate-graph-template-cb1288472856.pdf>

Interactive climate map – [http://www4.uwsp.edu/geO/faculty/ritter/interactive\\_climate\\_map/climate\\_map.html](http://www4.uwsp.edu/geO/faculty/ritter/interactive_climate_map/climate_map.html)

Interactive world climate map and graphs – <http://www.geoknow.net/pages/climategraphs.html>

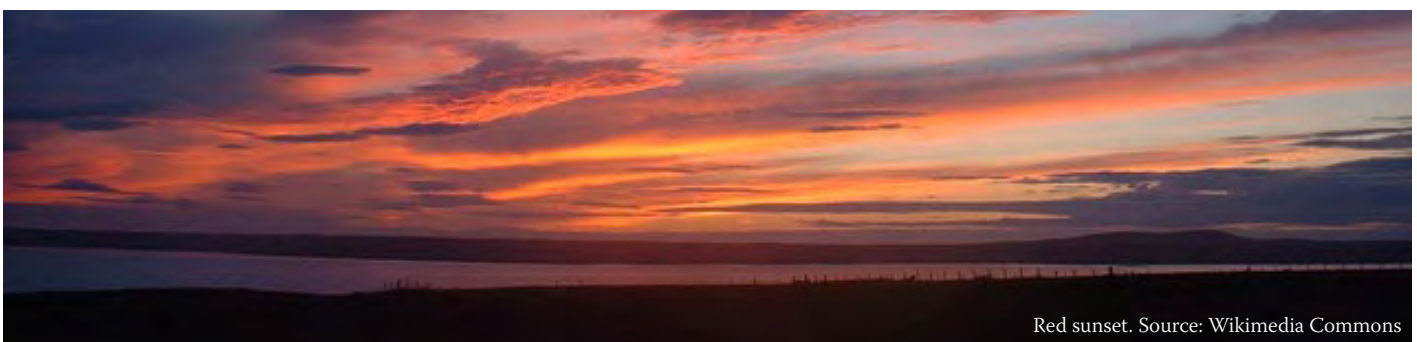
### Weather instruments

Weather kit – <http://www.bom.gov.au/info/weatherkit/section2/barom2.shtml>

How to make a weather station – <http://www.bom.gov.au/info/weatherkit/section4/station.shtml>

Build your own weather instruments – Multiple Intelligences – <http://www.miamisci.org/hurricane/rainmeasure.html>

Weather crossword – <http://www.bom.gov.au/info/weatherkit/section3/cross.shtml>



Red sunset. Source: Wikimedia Commons