



## Climate extremes: Student worksheet

The data about Australia's climate extremes comes from the Bureau of Meteorology ([www.bom.gov.au](http://www.bom.gov.au)).

### Ugh! It is really hot this afternoon!

You think today was hot? Here are the hottest places in each state of Australia, starting with the hottest.

#### Highest temperature

| State              | Temperature (°C) | Date             | Place name                | Latitude | Longitude |
|--------------------|------------------|------------------|---------------------------|----------|-----------|
| South Australia    | 50.7             | 2 January 1960   | Oodnadatta Airport        | -27.56   | 135.45    |
| Western Australia  | 50.5             | 19 February 1998 | Mardie                    | -21.19   | 115.98    |
| New South Wales    | 49.7             | 10 January 1939  | Menindee Post Office      | -32.39   | 142.42    |
| Queensland         | 49.5             | 24 December 1972 | Birdsville Police Station | -25.90   | 139.35    |
| Victoria           | 48.8             | 7 February 2009  | Hopetoun Airport          | -35.72   | 142.36    |
| Northern Territory | 48.3             | 2 January 1960   | Finke Post Office         | -25.58   | 134.57    |
|                    | 48.3             | 1 January 1960   | Finke Post Office         | -25.58   | 134.57    |
| Tasmania           | 42.2             | 30 January 2009  | Scamander                 | -41.46   | 148.26    |

Look up the location of each place in an atlas or online. A negative latitude means south of the equator.

Why is the hottest place the one in the centre of the continent?

Notice the months. In which month is the hottest day of the year where you live? Can you find the statistics on the Bureau of Meteorology site ([bom.gov.au](http://bom.gov.au)) to support your answer?

## Brr! It was really cold this morning!

You think it was cold where you are? Here are the coldest places in each state of Australia.

### Lowest temperature

| State              | Temperature (°C) | Date           | Place name                        | Latitude | Longitude |
|--------------------|------------------|----------------|-----------------------------------|----------|-----------|
| New South Wales    | -23.0            | 29 June 1994   | Charlotte Pass (Kosciusko Chalet) | -36.43   | 148.33    |
| Tasmania           | -13.0            | 30 June 1983   | Tarraleah Village                 | -42.30   | 146.45    |
|                    | -13.0            | 30 June 1983   | Butlers Gorge                     | -42.28   | 146.27    |
|                    | -13.0            | 30 June 1983   | Shannon HEC                       | -42.05   | 146.75    |
| Victoria           | -11.7            | 3 July 1970    | Falls Creek                       | -36.87   | 147.28    |
|                    | -11.7            | 15 June 1965   | Omeo Comparison                   | -37.10   | 147.60    |
| Queensland         | -10.6            | 12 July 1965   | Warwick (The Hermitage)           | -28.21   | 152.10    |
|                    | -10.6            | 23 June 1961   | Stanthorpe (Leslie Parade)        | -28.66   | 151.93    |
| South Australia    | -8.2             | 20 July 1976   | Yongala                           | -33.03   | 138.75    |
| Northern Territory | -7.5             | 17 July 1976   | Alice Springs Airport             | -23.80   | 133.89    |
| Western Australia  | -7.2             | 17 August 2008 | Eyre                              | -32.25   | 126.00    |

What is it about these places that makes them so cold?

Notice the months. In which month is the coldest day of the year where you live? Can you find the statistics on the Bureau of Meteorology site ([www.bom.gov.au](http://www.bom.gov.au)) to support your answer?

## That was a cloudburst! There is so much rain!

You think that is a lot of rain for one day?

Rainfall – highest daily

| State              | Rainfall (mm) | Date             | Place name              | Latitude | Longitude |
|--------------------|---------------|------------------|-------------------------|----------|-----------|
| Queensland         | 907.0         | 3 February 1893  | Crohamhurst             | -26.81   | 152.87    |
| New South Wales    | 809.2         | 21 February 1954 | Dorrigo (Myrtle Street) | -30.34   | 152.71    |
| Western Australia  | 747.0         | 3 April 1898     | Whim Creek              | -20.84   | 117.84    |
| Northern Territory | 544.6         | 15 April 1963    | Roper Valley            | -14.93   | 134.01    |
| Victoria           | 377.8         | 23 March 2011    | Tidal River             | -39.03   | 146.32    |
| Tasmania           | 352.0         | 22 March 1974    | St Marys (Cullenswood)  | -41.59   | 148.13    |
| South Australia    | 272.6         | 14 March 1989    | Motpena                 | -31.19   | 138.28    |

What is it about these places that makes them so wet?

What is the normal rainfall in those months in your area? Which month is the wettest in your area?