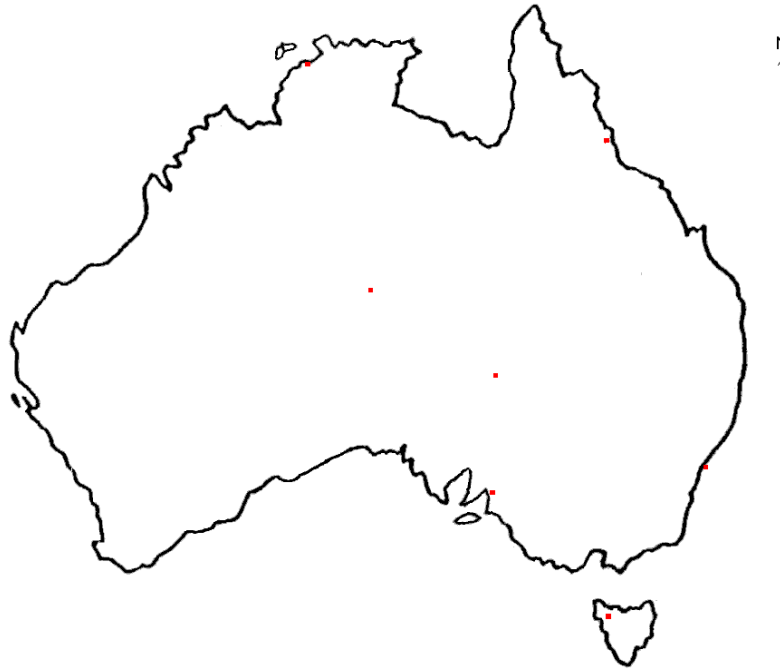


# Rain, Rain Come Today!

## Comparing the Rainfall of three Cities in Australia

### ACTIVITY: Locating some Cities on a map of Australia

Look at the map of Australia at the front of the class and locate the positions of the following four cities: Gosford, Darwin, Alice Springs and Adelaide. Now carefully write in the names of these sites in the correct place on the map below:



### QUESTIONS:

1. These photographs were taken somewhere near Gosford, Darwin, Alice Springs and Adelaide. Guess which photograph belongs to which locality.



Source: S. Codrington, WikiMedia



Source: Kingston Estate Winery



Source: SES, NSW



Source: Tourism NT

A..... ?    B. .... ?    C. .... ?    D..... ?

2. Which of these 4 cities is the most northern city? \_\_\_\_\_
3. Which city do you think has the coldest winter temperatures? \_\_\_\_\_
4. Which of these 4 cities do you think would have the driest climate? \_\_\_\_\_



# Rain, Rain Come Today!

## Average Monthly Rainfall and Temperature for three Cities in Australia

### ACTIVITY: To add up the total average rainfall in a year for Gosford, Darwin and Adelaide

Look at the Table of information below. Notice that for each city – Gosford, Darwin and Adelaide – there is one column listing the **months of the year**, another column listing the **amount of rainfall** on average that falls in each month and another listing the average 9 am temperature for each month. This data is based on averages across many years of daily weather records.

Using a calculator, **add up** the total rainfall for a whole year that falls on average in each of the three cities. **Write** the total rainfall in the proper place in the three Tables

### The Mean 9 AM Temperature ( $^{\circ}\text{C}$ ) and Amount of Rainfall (mm) each Month for Gosford, Darwin and Adelaide

MONTH	GOSFORD		DARWIN		ADELAIDE	
	Total monthly rainfall (mm)	Mean 9 am temperature ( $^{\circ}\text{C}$ )	Total monthly rainfall (mm)	Mean 9 am temperature ( $^{\circ}\text{C}$ )	Total monthly rainfall (mm)	Mean 9 am temperature ( $^{\circ}\text{C}$ )
January	139	22.9	393	28.8	20	23.5
February	148	22.4	330	28.6	21	23.5
March	150	20.8	258	28.7	24	21.0
April	136	18.4	103	28.5	44	17.7
May	119	14.2	14	26.6	68	14.0
June	128	11.6	3	24.6	72	11.2
July	79	10.4	1	23.8	67	10.3
August	76	12.8	2	25.5	62	11.8
September	69	16.2	13	28.0	51	14.3
October	83	19.2	52	29.8	45	17.4
November	92	20.4	124	30.2	31	20.2
December	102	22.3	242	29.8	26	22.2
<b>TOTAL</b>						

Source: Bureau of Meteorology [http://www.bom.gov.au/climate/averages/tables/ca\\_site\\_file\\_names.shtml](http://www.bom.gov.au/climate/averages/tables/ca_site_file_names.shtml)

### QUESTIONS:

- Based on the total rainfall for a year, which city is the wettest? \_\_\_\_\_
- Based on the total rainfall for a year, which city is the driest? \_\_\_\_\_
- Which city has the **least** amount of rain during the month of **July**? \_\_\_\_\_  
**For this city**, which month has the **most** rainfall, on average? \_\_\_\_\_  
 What is the city's mean 9 am temperature during that month? \_\_\_\_\_



# Rain, Rain Come Today!

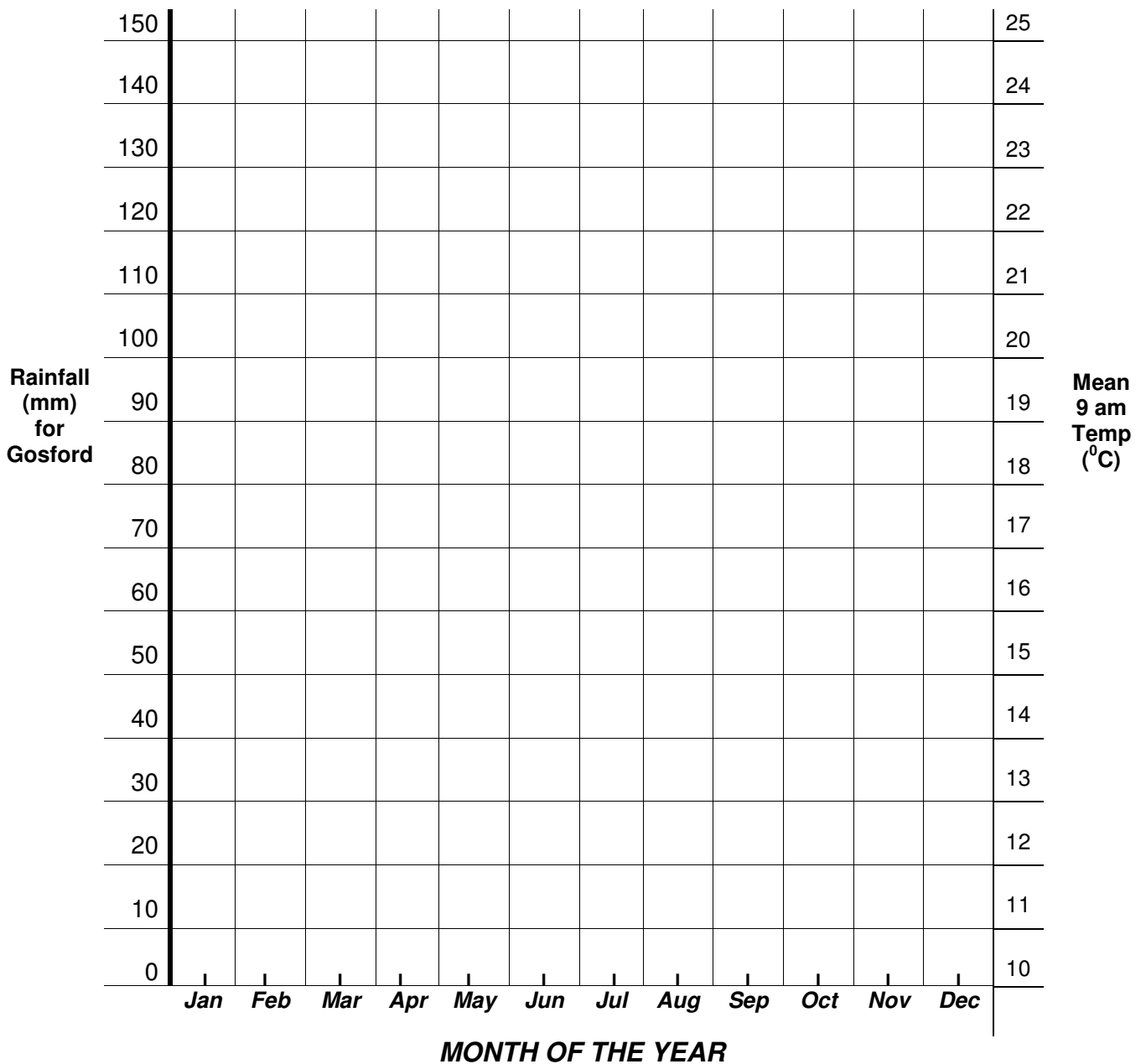
## Graph of Rainfall for Gosford.

### ACTIVITY: To create a Column Graph of Rainfall and a Line Graph temperature for Gosford

Using the information in Table 1 for Gosford, create a column **Graph** of the information by drawing a line across the columns to show the amount of rainfall for each month (January to December) and then colouring in the section below it.

Then draw a line graph of mean 9 am temperature by plotting the points for each month and joining up the points with ruled lines.

### Average Total Rainfall and Mean 9 AM Temperature for each Month in Gosford



# Rain, Rain Come Today!

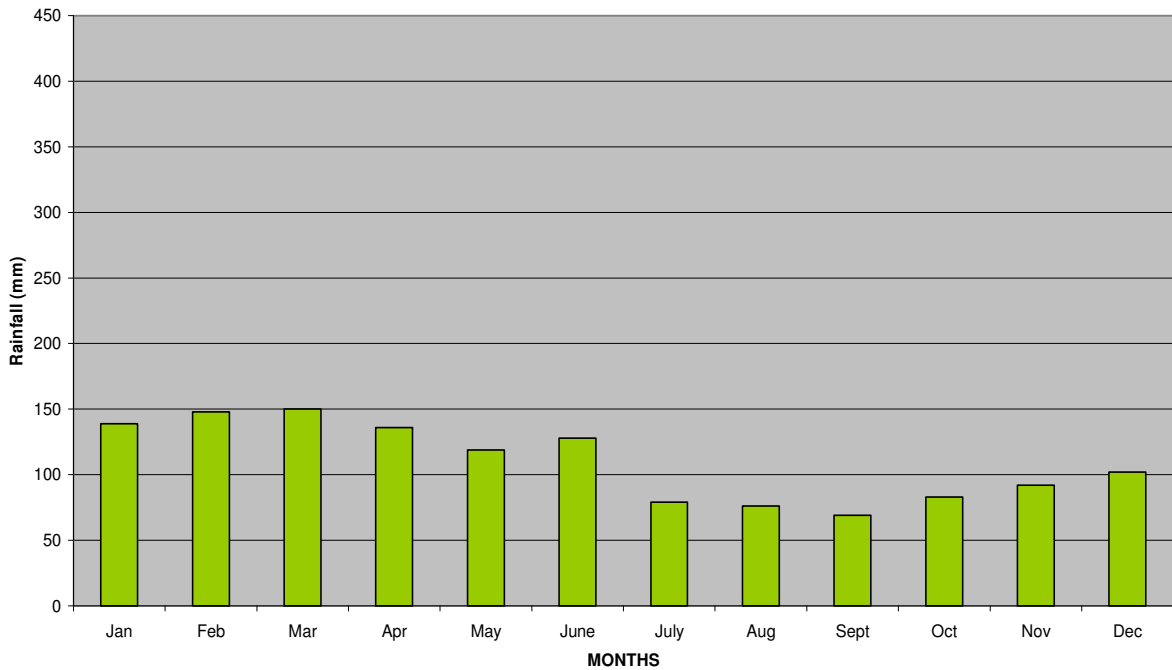
Examine the Rainfall for Gosford, Adelaide and Darwin.

## ACTIVITY: To match Photos of Vegetation to three Places with different Rainfall Patterns

Examine the graphs of yearly rainfall pattern for three locations: Gosford, Darwin and Adelaide and then answer the questions below each of the three graphs:

### 1. GOSFORD

GOSFORD Monthly Rainfall



#### QUESTIONS:

8. Look at this graph. How much rain usually falls in March?.....mm.
9. In Gosford, which month of the year has the least amount of rain usually? .....
10. Look at these three photographs and guess which were taken in the general area of Gosford and which were taken in another environment?



Source: Wyong Council



Source: AndJam, WikiMedia



Source: Ruth Ellison, WikiMedia

A. ....? ?

B. ....? ?

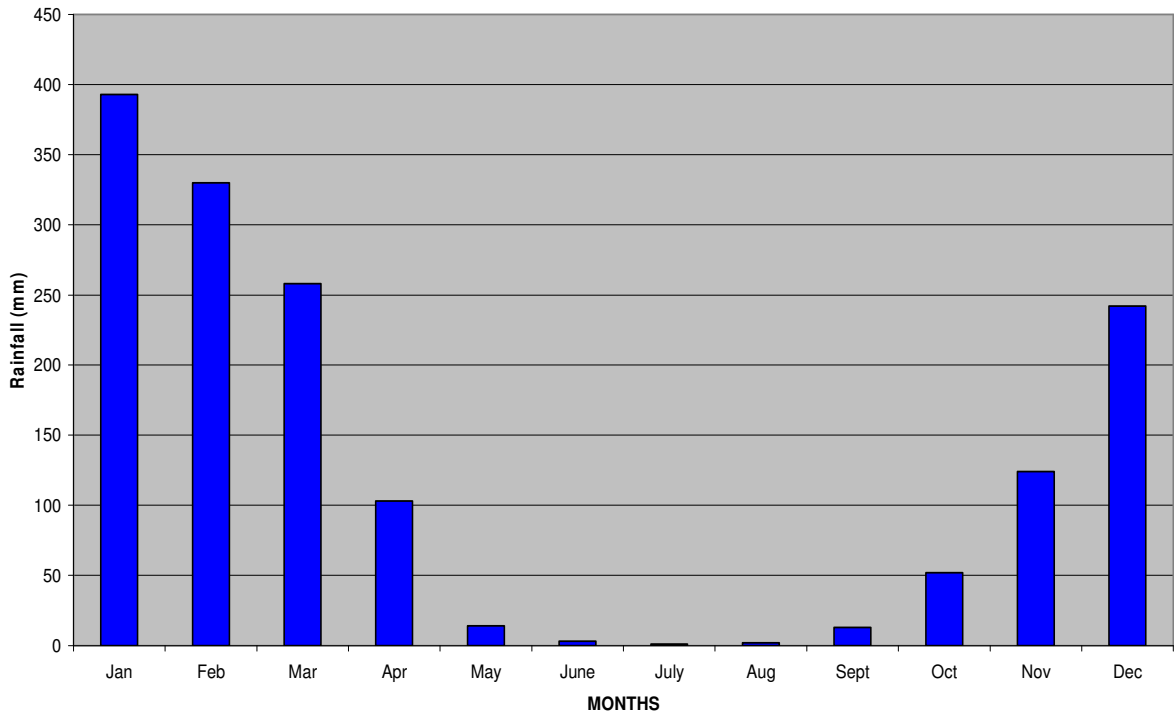
C.....? ?



# Rain, Rain Come Today!

## 2. DARWIN

DARWIN Monthly Rainfall



### QUESTIONS:

11. Based on this rainfall graph for the Darwin area, guess in which month of the year each of these photograph was taken.



Source: Andrew Taylor, UNSW

Month? .....



Source: Andrew Taylor, UNSW

Month? .....

12. On average how much rain falls during the month of May? .....mm.

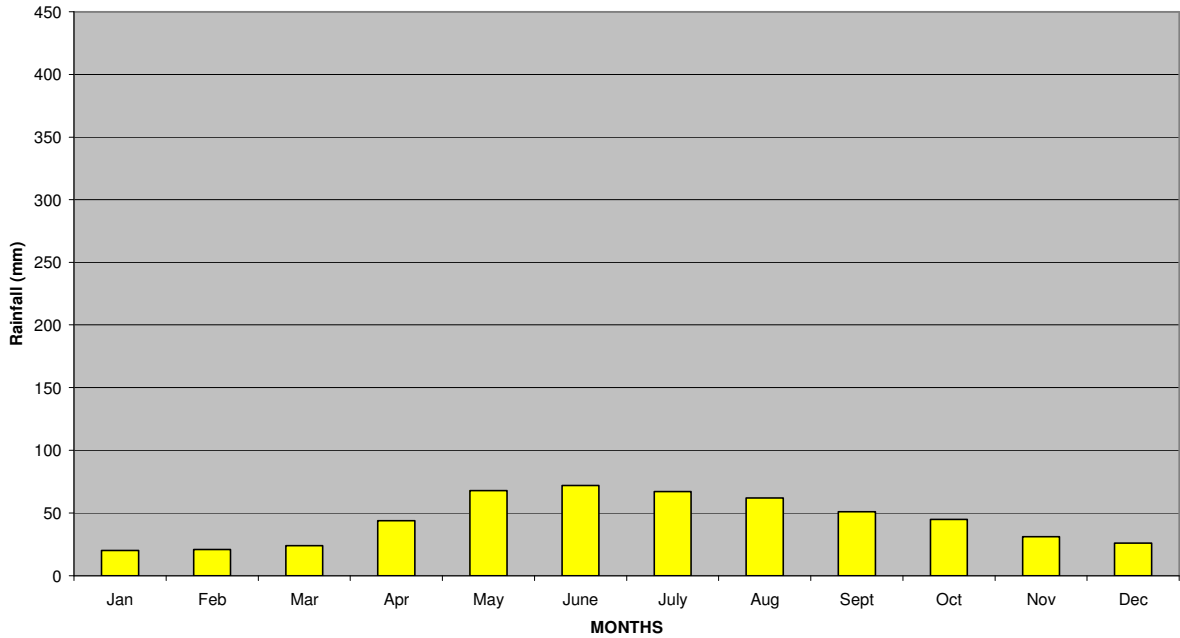
13. How much falls in January? .....mm.



# Rain, Rain Come Today!

## 3. ADELAIDE

ADELAIDE Monthly Rainfall



### QUESTIONS:

14. Based on this rainfall graph for the Adelaide area, guess in which month of the year each of these photograph was taken.



Source: Kingston Estate Vineyards

Month? .....



Source: Iain Whyte, Wikimedia

Month? .....

15. On average how much rain falls during the month of June? .....mm.

16. How much falls in January? .....mm.

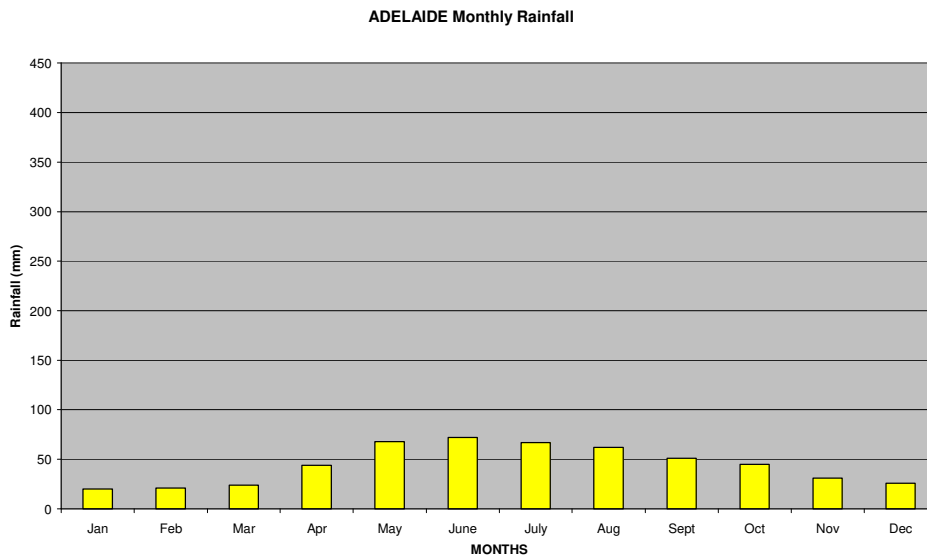
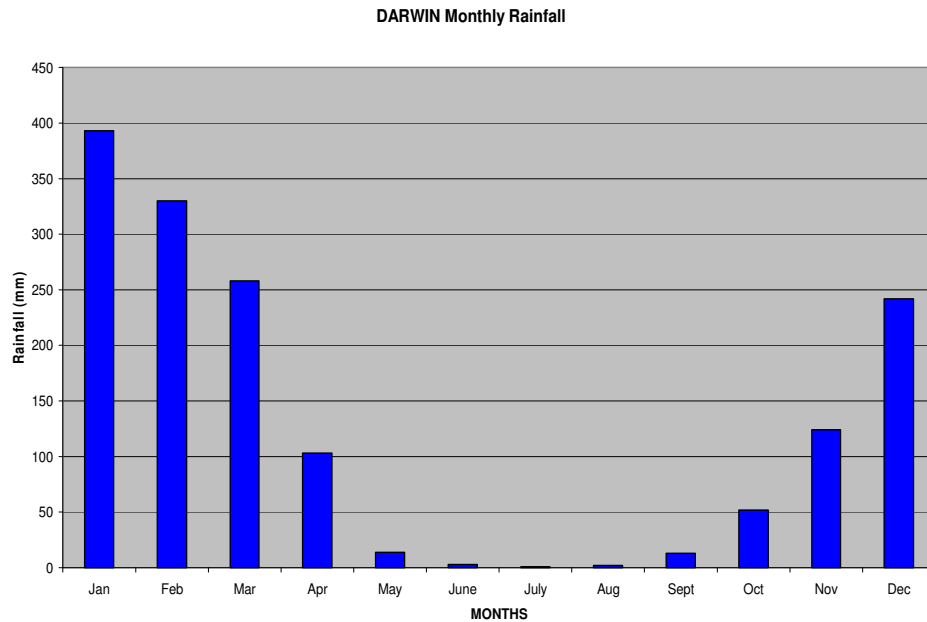


# Rain, Rain Come Today!

## Compare Rainfall Graphs

**ACTIVITY:** To compare the rainfall graphs from two of the locations

Look at the similar features and the differences in the graphs of average yearly rainfall obtained from the two locations - Darwin and Adelaide - then answer the questions below the graphs:



### QUESTIONS:

17. Which of the two places has the least amount of rainfall in June? \_\_\_\_\_
18. Which of the two places has the least amount of rainfall in January? \_\_\_\_\_
19. Which of the two places has the least amount of rainfall in total for one year? \_\_\_\_\_



# Rain, Rain Come Today!

## EXTRA-ORDINARY: Facts about Australian rainfall

### THE WETTEST PLACES ON RECORD IN AUSTRALIA

- The highest amount of rain that fell in one year at an Australian weather station occurred in the year 2000 at **Bellenden Ker** (a mountain 60 km south of Cairns) in Queensland. In just one year it recorded 12,461 mm of rain!!
- The highest amount of rain that has been recorded for a single day at **Bellenden Ker** is 1140 mm !!
- In 1955, at **Waratah** in Tasmania, there was rain on 314 days in the year (on average, 6 days per week for the whole year)!!

### THE DRIEST PLACE ON RECORD IN AUSTRALIA

- Based on thirty years of records, **Troudanina**, in South Australia, is the weather station with the lowest total amount of rain in a year.
- On average, it receives only 105 mm of rain in a year!!! In some years it receives almost no rain at all!!

### ACTIVITY: See if you can locate these places on your map of Australia.

Using atlases and/or the Internet see if you can find the locations of Bellenden Ker, Waratah and Troudanina. (Note: You might have to send an Email to someone to find the answers). If you are successful, place the three locations on your map of Australia.

## Climate & Weather: What's the difference?

*Climate* is what you expect.

*Weather* is what you get.

*Climate* is about long-term records, trends and averages;

*Weather* is the day to day experience.

*Climate* is the sum of all the weather recorded over a long period of time. It tells us the average or most common conditions, or extremes, or counts of events.

*Weather* is a description of conditions over a short period of time - a "snap shot" of the atmosphere at a particular time.

**If *weather* is your wristwatch, then *climate* is your calendar!!**

Source for this page : Bureau of Meteorology: <http://www.bom.gov.au/>

### ACTIVITY: Describe the Weather today.

In your own words, describe the weather today.

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