O3. Climate The Raphaëla Le Gouvello education packet - Windsurfing solo across the Indian Ocean http://www.respectocean.com

26C°

Earth, Water, and Climate



Throughout her journey across the Indian Ocean, Raphaëla will be nice and warm. It's only natural: her journey begins and ends in the area between the equator and the Tropic of Capricorn, the Earth's "tropical zone," where it's always warm.

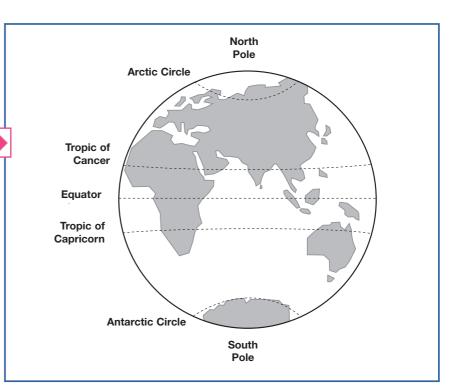
But there are other zones. The two areas between the Earth's poles and the polar circles are called the "polar zones."

In the areas between the polar zones and the tropical zones, the weather is hot in summer and cold in winter and the seasons are the same as in Paris. These areas are called the "temperate zones."

Activity

On the globe, color the tropical zones red, the polar zones blue, and the temperate zones yellow. Don't forget to write in their names.





The climates of Australia

Each of these zones is home to different climates, however. Here are a few of the climates found in Australia.* The chart gives the average temperature (in °C and °F) and rainfall (in mm and inches) for each month of the year. That's a lot of numbers!

* See next page!



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EXMOUTH	July	August	September	October	November	December	
T°C/°F	18.5/65	19.5/67	22/72	24.5/76	26.5/80	28.5/83	
P mm/inches	19/0.75	10/0.40	1/0.04	1/0.04	2/0.08	4/0.16	
	lanuary	Echruary	March	April	May	luno	Voor
	January	February	March	April	May	June	Year
T°C/°F	January 29.5/85	February 30/86	March 29.5/85	April 27/81	May 22.5/73	June 19.5/67	Year 24.8/77

PERTH	July	August	September	October	November	December
T°C/°F	13.2/56	13.6/56	14.9/59	16.5/62	19.5/67	22/72
P mm/inches	174/6.8	136/5.3	80/3.1	53/2	21/0.8	13/0.5

	January	February	March	April	May	June	Year
T°C/°F	24/75	24/75	22.5/73	19.5/67	16/61	14/57	18.3/65
P mm/inches	8/0.3	13/0.5	19/0.75	45/1.7	122/72	182/7.2	866/34

MELBOURNE	July	August	September	October	November	December
T°C/°F	9.5/49	10.5/51	12.5/55	14.5/58	16.5/62	18.5/65
P mm/inches	49/1.92	50/1.96	59/2.3	67/2.6	60/2.4	59/2.3

	January	February	March	April	May	June	Year
T°C/°F	20/68	20/68	18.5/65	15.5/60	12.5/55	10/50	14.8/59
P mm/inches	48/1.9	47/1.8	52/2	57/2.2	58/2.3	49/1.92	655/25.8

HOBART	July	August	September	October	November	December
T°C/°F	8/46	9/48	10.5/51	12.5/55	14/57	15.5/60
P mm/inches	96/3.8	89/3.5	80/3.1	84/3.3	75/2.9	77/3

	January	February	March	Aprıl	May	June	Year
T°C/°F	16.5/62	16.5/62	15.5/60	13/55	10.5/51	8.5/47	12.5/55
P mm/inches	61/2.4	56/2.2	68/2.67	81/3.2	87/3.4	ß91/3.6	945/37

BRISBANE	July	August	September	October	November	December
T°C/°F	15/59	16/61	18/64	21/70	23/73	24/75
P mm/inches	57/2.2	47/1.8	47/1.8	77/3	97/3.8	134/5.3

	January	February	March	April	May	June	Year
T°C/°F	24.5/76	24.5/76	23.5/74	21.5/71	18/64	16/61	20.5/69
P mm/inches	161/6.3	156/6.1	140/5.5	89/3.5	73/2.87	69/2.7	1147/45

ALICE SPRINGS	July	August	September	October	November	December
T°C/°F	11.5/53	14.5/58	18.5/65	22.5/73	25.5/78	27.5/82
P mm/inches	12/0.47	10/0.40	9/0.35	20/0.78	25/0.98	37/1.45

	January	February	March	April	May	June	Year
T°C/°F	28.5/83	27.5/82	25/77	20/68	15.5/60	12.5/55	20.7/69
P mm/inches	40/1.5	41/1.6	35/1.37	17/0.66	17/0.66	17/0.66	280/11



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Month-to-month variations in temperature and precipitation may be plotted together on the same graph to create a graphic depiction of a climate.

A graphic depiction of the climate of Brest, a city in northwestern France, is shown below so that you can compare it with the climates of Australia.

On the vertical axis, upper left: each 1 mm (0.04 inches) on the graph represents 0.5 $^{\circ}$ C/0.9 $^{\circ}$ F.

On the vertical axis, upper right: each 1 mm (0.04 inches) on the graph represents 1 mm/0.04 inches of precipitation.

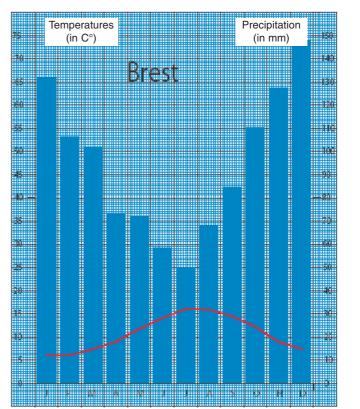
On the horizontal axis, each 1 cm (0.4 inches) on the graph represents 1 month.

Activity

Now it's your turn to graph the climates of Australia. Because Australia is in the southern hemisphere, everything is the opposite from the northern hemisphere: you must begin on the left for the month of July.



Which Australian city has a climate most like that of Brest?



(Graph reproduced on a reduced scale.)