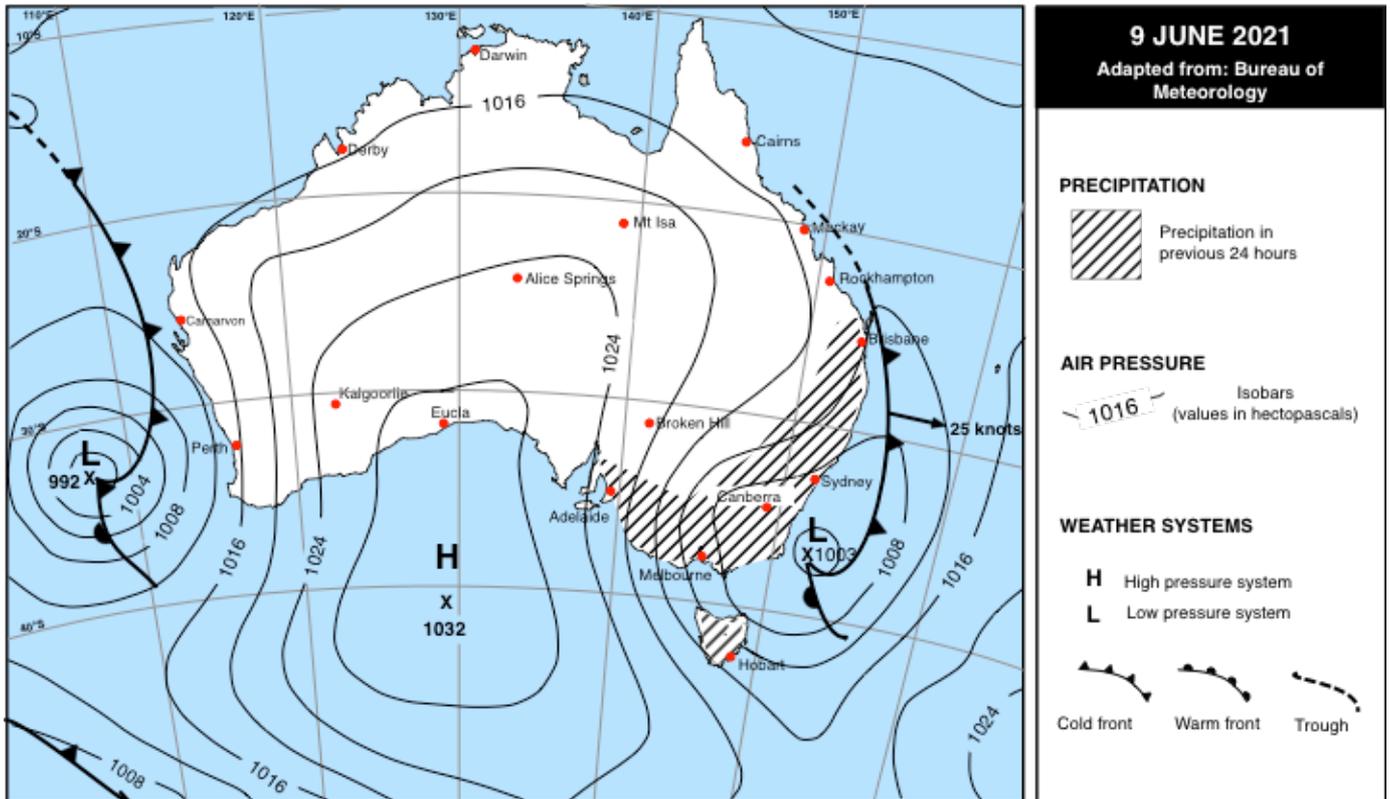


INVESTIGATING THE PASSAGE OF A COLD FRONT - JUNE 2021



The 9th June 2021 saw southeastern Australia affected by an **the passage of a severe cold front** and its associated low pressure system. Cities and towns in these areas had a period of extreme weather with heavy rains, snow and gale force winds. Your task is to investigate this weather and its impact.



1. Study the weather map above and answer the following questions:

What was the air pressure at each of the following places -

Perth Brisbane Adelaide

Describe the extent of the precipitation shown on the map.
.....

What is the pressure gradient (difference in air pressure) between Adelaide and Melbourne?

.....

How does this compare to pressure gradients across northern Australia?

.....

This was a period of near gale force winds across Victoria. What information on the weather map tells you this?

.....

What is the general direction of movement of cold fronts across Australia?

How fast was the cold front in eastern Australia moving?

This time of the year is the “dry season” across northern Australia. What causes this extended period of dry weather across the north?

.....

2. Use the link to the ABC's website and the Australian Bureau of Meteorology's website to find out more about the passage of a cold front (make sure you watch the video at these websites!) Write **brief notes** in the spaces provided:

<https://www.abc.net.au/news/2019-07-12/what-is-a-cold-front/11303562>
<http://media.bom.gov.au/social/blog/1001/the-big-chill-what-is-a-cold-front/>

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What is a cold front?

Why do cold fronts bring bad weather?

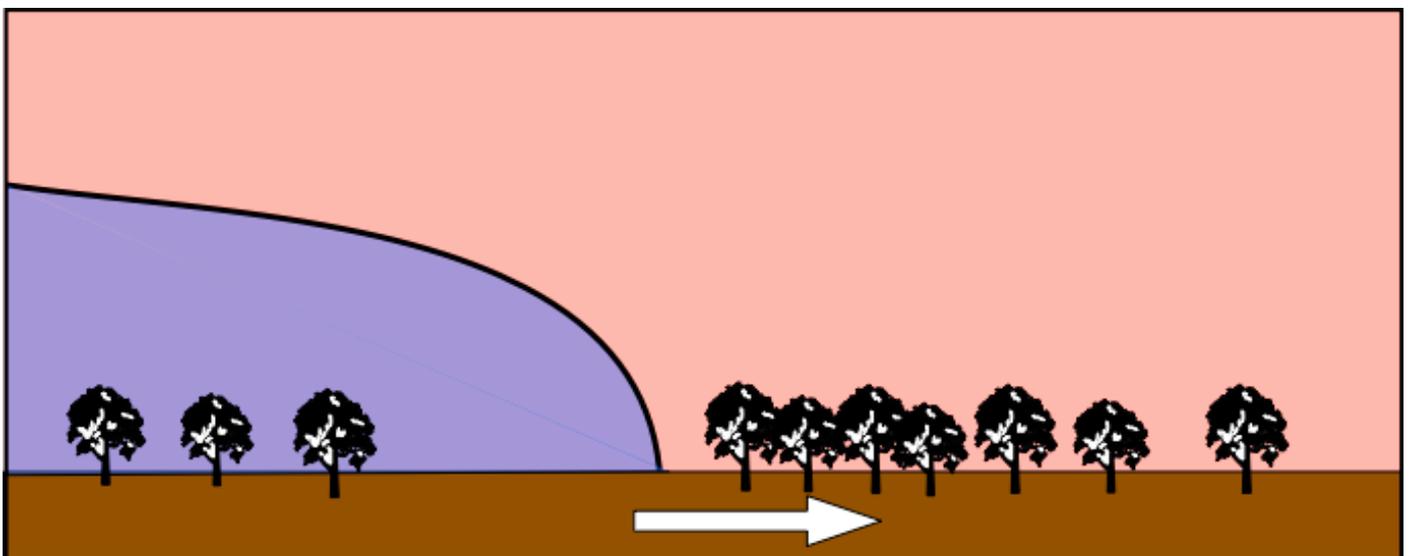
Describe the weather that summer cold fronts bring.

Describe the weather that winter cold fronts bring.

Complete this diagram showing the following as text and/or graphic:

Cold air Warm air Frontal surface Direction of front movement Warm air rising
Formation of clouds Rain

Cross-section of a cold front



3. Research and write **brief notes (around the map below) on the impact of the passage of the cold front** that affected southeastern Australia on the 9th June 2021. Find some information to -
- describe the type of weather experienced at different places **and**
 - assess the impact of the weather on people.
 - locate the places affected on the map

This website may be useful, but, you should also look at other news websites:

<https://www.theguardian.com/australia-news/2021/jun/10/wild-weather-cold-front-wreaks-havoc-on-victoria-and-brings-snow-to-swathes-of-nsw>

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Places impacted by cold front on 9th June 2021



e.g. Wilsons Promontory - wind speeds up to 115km/hr