

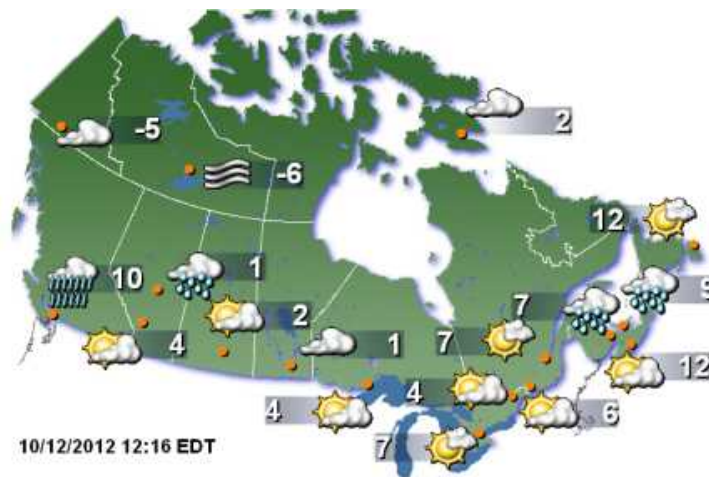
Unit 2

Earth and Space Science: Weather dynamics

- Review
- Weather Station readings
- Weather Maps
- conclusion
- Challenge!

Weather Maps p.208-9 and 270-272

- Weather maps show lots of weather information through pictures.
- If we look at them carefully we can predict what the weather will be like in the future.
- Most weather maps have 5 key parts



Weather Maps

1. **Temperature**– This may be in the form of lines or colour coded areas called isobars.



2. **Precipitation**– This is often shown as little pictures.


- Snowflakes for snow, rain droplets for rain, etc.

Often:

Rain: 

Freezing Rain: 

Snow: 

Lightning: 

Sun: 

Cloud: 

Simple example:



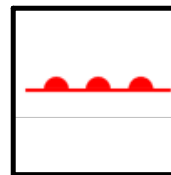
Weather Maps

3. Fronts – a boundary separating two masses of air of different densities

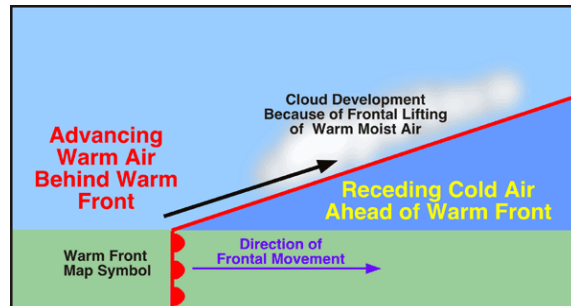
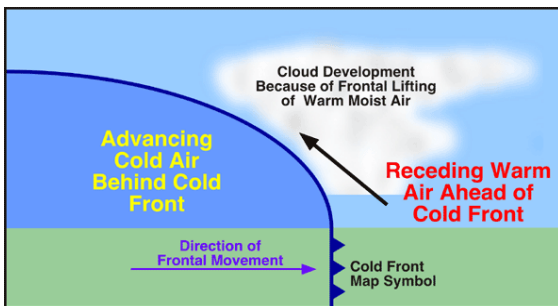
- Cold fronts are drawn in blue with triangles.
- Warm fronts are drawn in red with semicircles.



Cold Front



Warm Front



Cold and Warm Fronts Visualization



Weather Maps

4. High or low pressure areas:

A) High pressure areas

- Formed when two air masses come together and prevent warm air from rising.

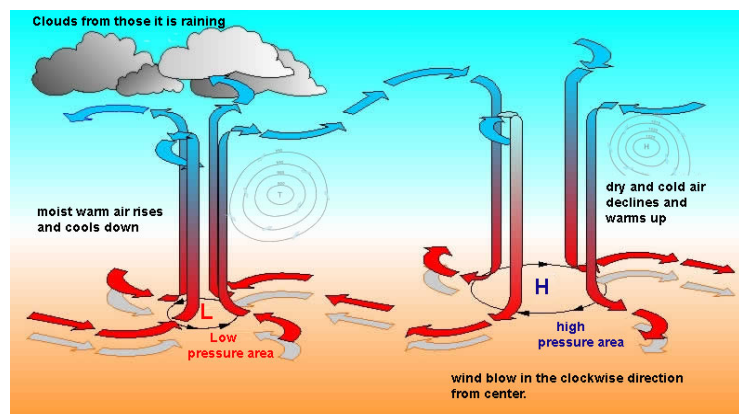
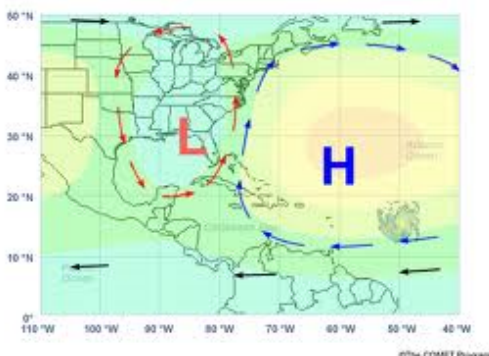
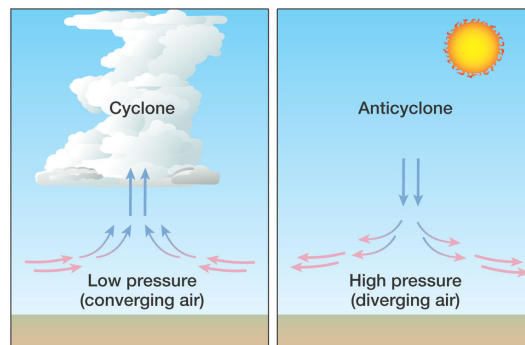
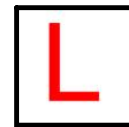
- This results in fair (nice) weather.



B) Low pressure areas

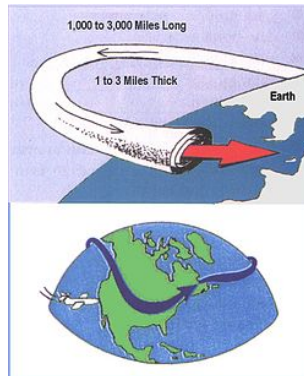
- Form when two air masses move apart.

- This allows warm air to rise and often results in rain.



Weather Maps

5. The jet stream– This is a “tunnel” of wind in the upper troposphere that can be as fast as 500km/h.



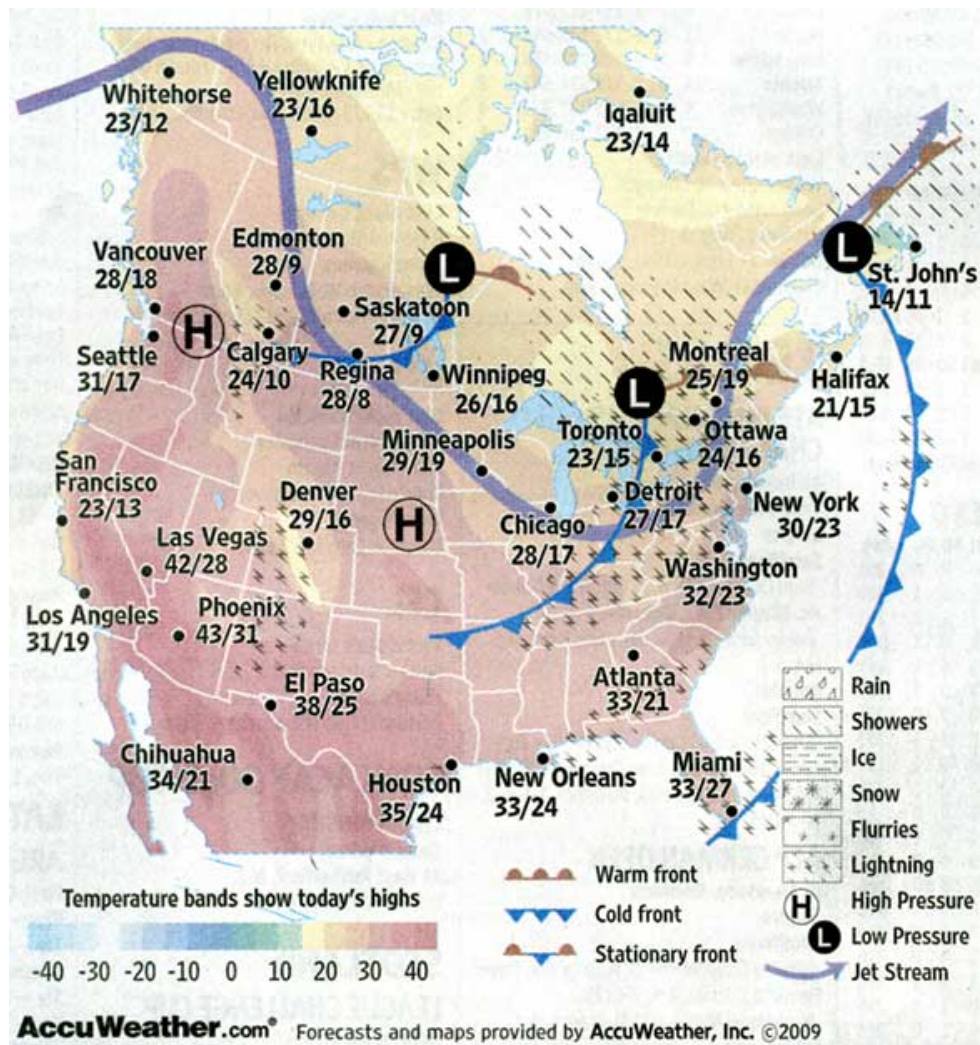
- The jet stream forms when two air masses with different pressures meet high in the atmosphere.



- The jet stream is not always located in the same place.
 - It helps us predict where storms will occur.



Weather Maps



Conclusions?

Project!

Attachments

1206Attendance.xlsx