

Chapter 10.2 – Notes

What is Weather? - Condition of the atmosphere in a specific place and at a specific time

- includes temperature, atmospheric pressure, amount of moisture in the air, and wind speed and direction.

Atmospheric Pressure – pressure exerted by the mass of air above any point on Earth's surface

Use a **Barometer** to Measure atmospheric pressure (measured in Pascals or kilopascals, kPa)

Factors Affecting Atmospheric Pressure:

- Altitude
 - sea level – 101.3 kPa
 - atmospheric pressure decreases as altitude increases (ears pop in an air plane)
- Temperature
 - warm air is less dense (lighter) than cold air
- Humidity (amount of water vapour in the air)
 - air is lighter when it contains more water vapour – humid / wet air exerts less atmospheric pressure than dry air
 - Decrease in atmospheric pressure suggests warm humid air approaching / increase in atmospheric pressure suggests cool, dry air is coming
 - as temperature increases its capacity to hold water vapour also increases
 - relative humidity refers to amount of water vapour in the air – 50% means the air is 50% saturated with water vapour.