1.3 The Climates of Canada p. 25 – 28

- Climate is the temperature, humidity, rainfall and atmospheric activities of a region over a long period of time.
- These changing conditions from day to day, month to month is what we call weather.
- Inland areas experience **continental climates**, with extreme temperature changes & low precipitation.
- Coastal areas have **maritime climates**, with mild temperatures & high precipitation.

Temperature

- Latitude – the higher the latitude, the lower the intensity of the sun's rays.
- Altitude – the higher the altitude, the colder the temperature.
- Distance from the sea – temperatures in areas by large bodies of water are moderated by it and have less difference between summer & winter temperatures.
- Wind direction – In Canada, prevailing winds come from the North or West.
- Ocean currents – are either warm or cold and will heat or cool the air above it.

Precipitation

- Main forms are rain, snow, hail & fog.
- Precipitation is affected by distance from the sea and the prevailing winds.

Climate Change

- The burning of fossil fuels has trapped greenhouse gasses in the atmosphere, raising the world's climate & changing precipitation patterns.
- Canada will be especially affected by climate change:
    - Melting & crumbling permafrost damages roads & buildings.
    - Ice roads supplying remote regions are melting sooner.
    - The Northwest Passage through the Arctic Ocean may melt, opening trade.
    - Drier summers on the prairies lead to drought
- Canada is on the list of the highest global emitters of greenhouse gasses in the world.