Atmospheric Layers

The Troposphere
- life forms
- weather
- 75% of atmosphere

The Stratosphere
- ozone layer
- 24% of atmosphere

The Mesosphere
- Cold
- a few molecules
- Shooting stars
- burn up here

The Thermosphere
- Fewer molecules
- Large temperature fluctuations

The Exosphere
- Occasional molecules
- gradually escaping into space
Atmospheric Pressure
Atmospheric Circulation - No Rotation
Atmospheric Circulation with Rotation

- Polar easterlies
- Polar front
- Horse latitudes
- Hadley cell
- Doldrums
- NE trade winds
- Westerlies
- SE trade winds
- 0°
- 30°
- 60°
- Polar high
Hadley Cells

The Hadley cells are a global atmospheric circulation pattern that results in the movement of air from the equator towards the poles. The process starts with cool air sinking at the poles, then moving towards the equator, where it rises. This warm air then moves back towards the poles, creating a high-pressure area. The cycle repeats, forming the Hadley cells. This pattern of circulation is crucial in the redistribution of heat and moisture around the Earth.
Hurricanes
Tornado