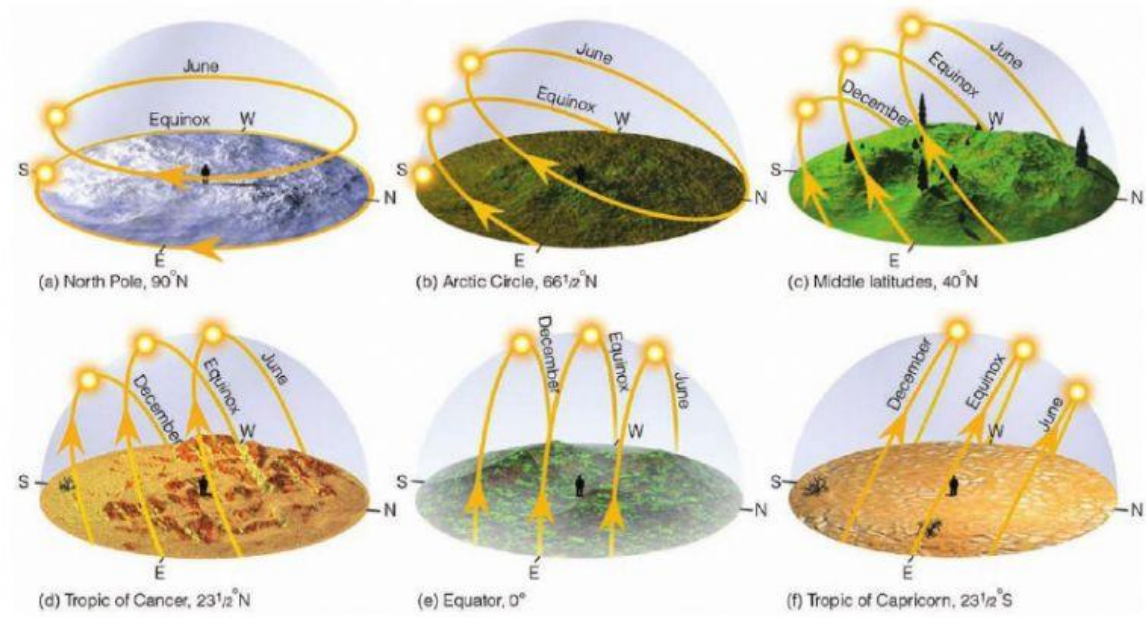
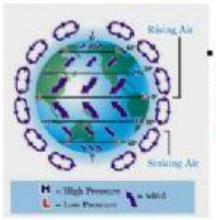
11.3 Clouds



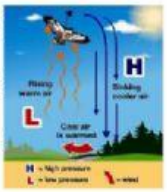
Convection cells

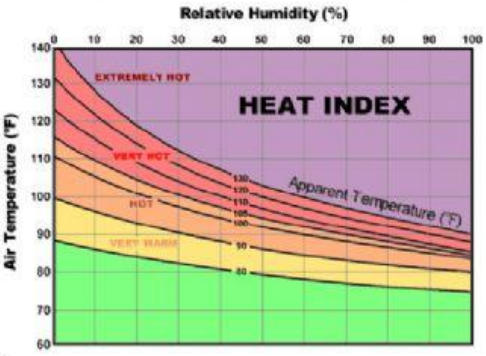


- The combination of global convection and Earth's rotation sets up a series of wind patterns called **convection cells.**

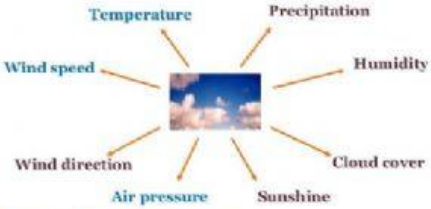
Temperature

- Heated air near a hot surface is less dense than the colder air above it.
- The heated air rises, forcing the colder air to move aside and sink toward the ground.
- Then this colder air is warmed by the surface, and it rises.
- **Wind** is created.



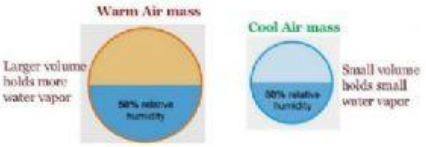


Introduction to Weather



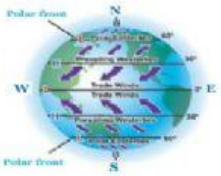
Relative Humidity

- **Relative humidity** is a measure of how much water vapor an air mass contains.



Air and water vapor

- Three important global wind patterns exist in each hemisphere:
  - Trade winds
  - Prevailing westerlies
  - Polar easterlies



1. What happens to turn water vapor into a cloud?

2. What effects do clouds have on temperature?

3. Compare and contrast cirrus, stratus, and cumulus clouds.