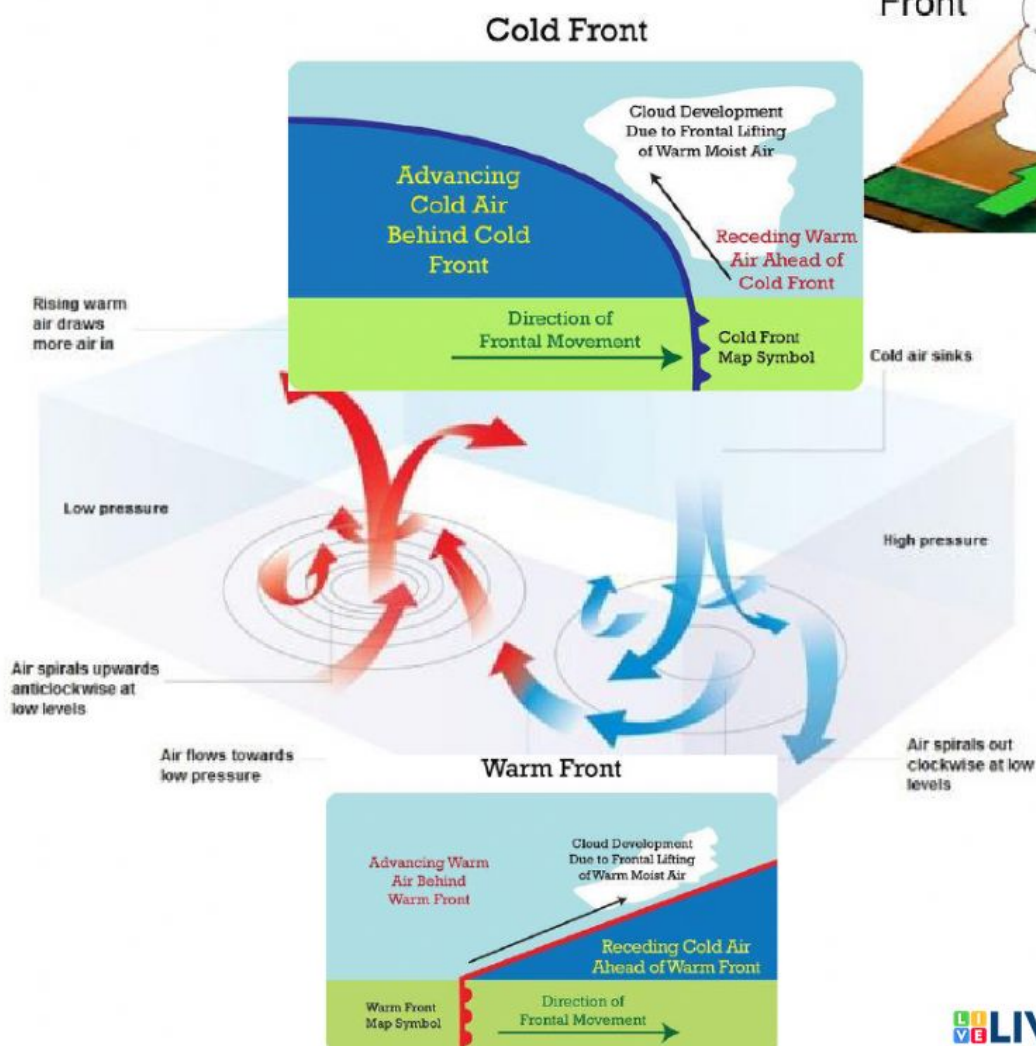
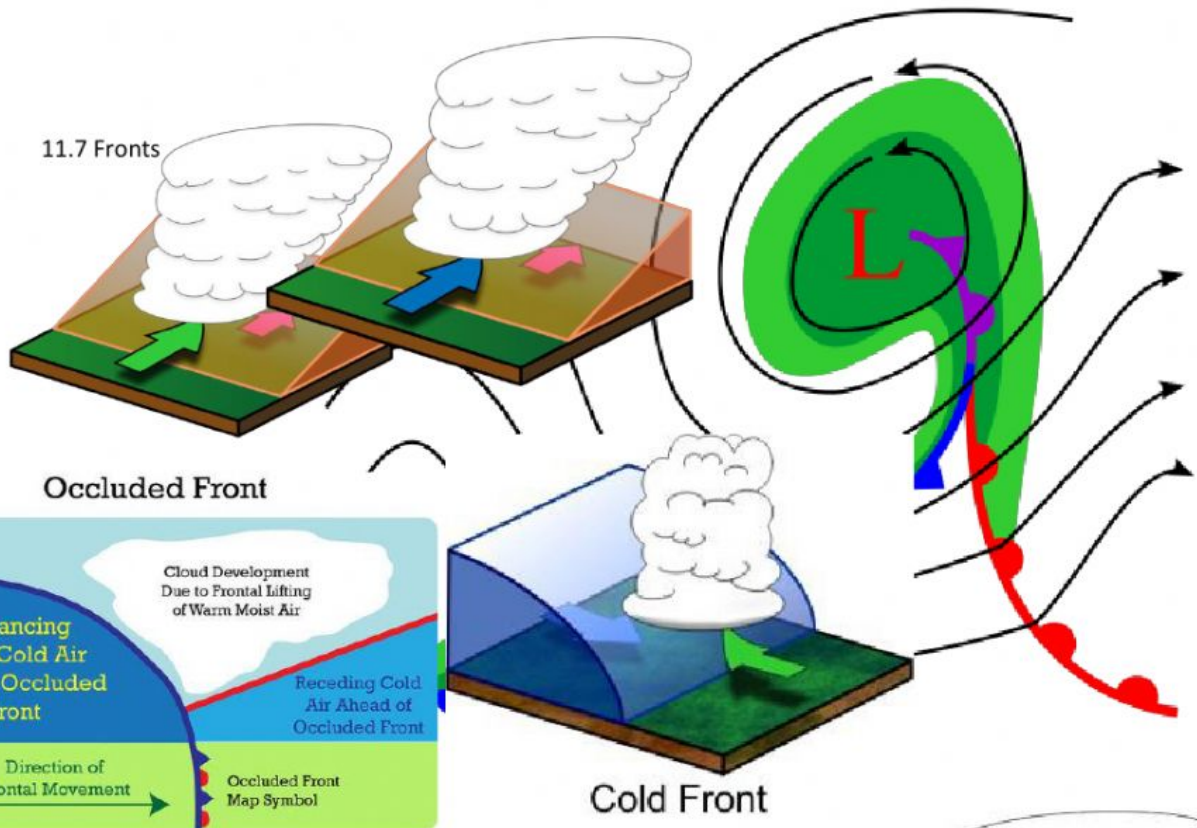


11.7 Fronts



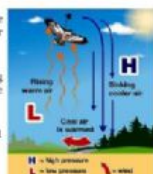
6) What are Cirrus Clouds?

- Thin, feathery white clouds
- Found in high altitudes
- Form when the wind is strong
- May indicate approaching bad weather if they thicken and lower in altitude

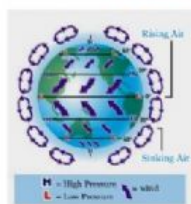


Temperature

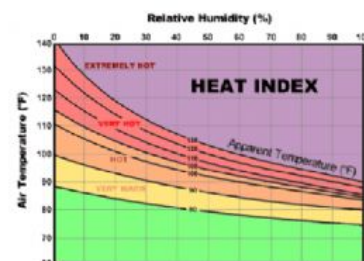
- Heated air near a hot surface is less dense than the colder air above it.
- The heated air rises, forcing the colder air to move aside and sink toward the ground.
- Then this colder air is warmed by the surface, and it rises.
- Wind is created.



Convection cells



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



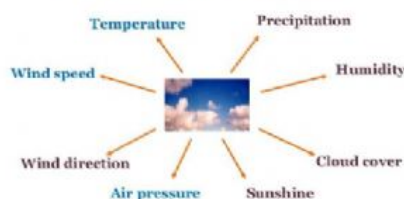
Precipitation

- Precipitation - any form of water that:
 - falls from clouds
 - reaches Earth's surface
- Types of Precipitation
 - Rain
 - Most common
 - Drops at least 0.5 mm in Diameter
 - Smaller drops are drizzle, even smaller are mist
 - Sleet
 - When raindrops fall through a layer of air below 0°C
 - Ice particles smaller than 5 mm

Moisture

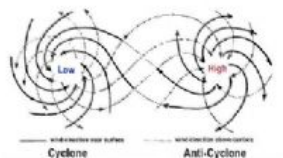
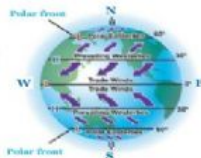
- An air parcel with a large moisture content has the potential for that parcel to produce a great amount of precipitation.
- Air with a mixing ratio of 13 g/kg will likely rain a greater amount of water than air with a mixing ratio of 6 g/kg.

Introduction to Weather



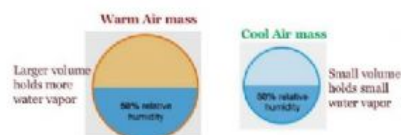
Air and water vapor

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



Relative Humidity

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



1. What is a front?
2. How does a cold front form?
3. What forms along a cold front?
4. How does a warm front form?
5. What type of clouds form at warm fronts?

6. What type of precipitation is produced from a warm front?

7. What is a stationary front?

8. What type of weather can occur at an occluded front?