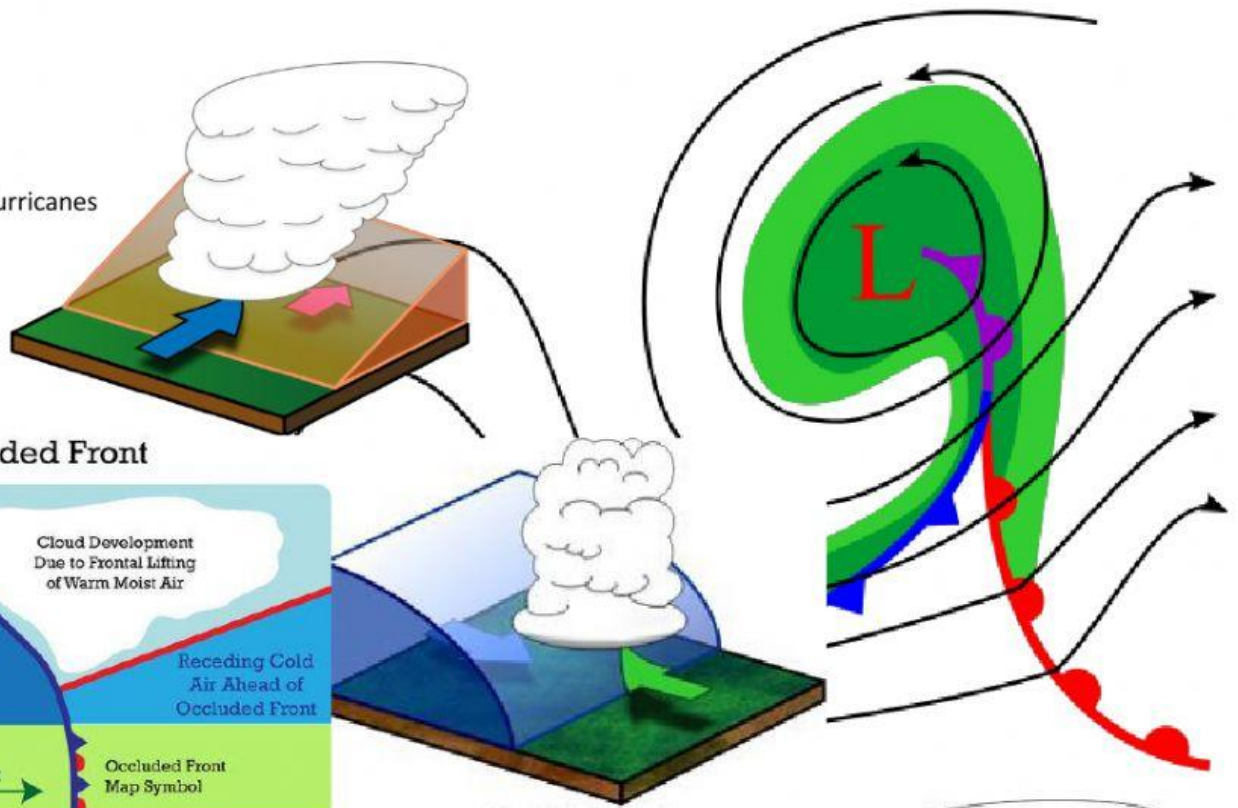


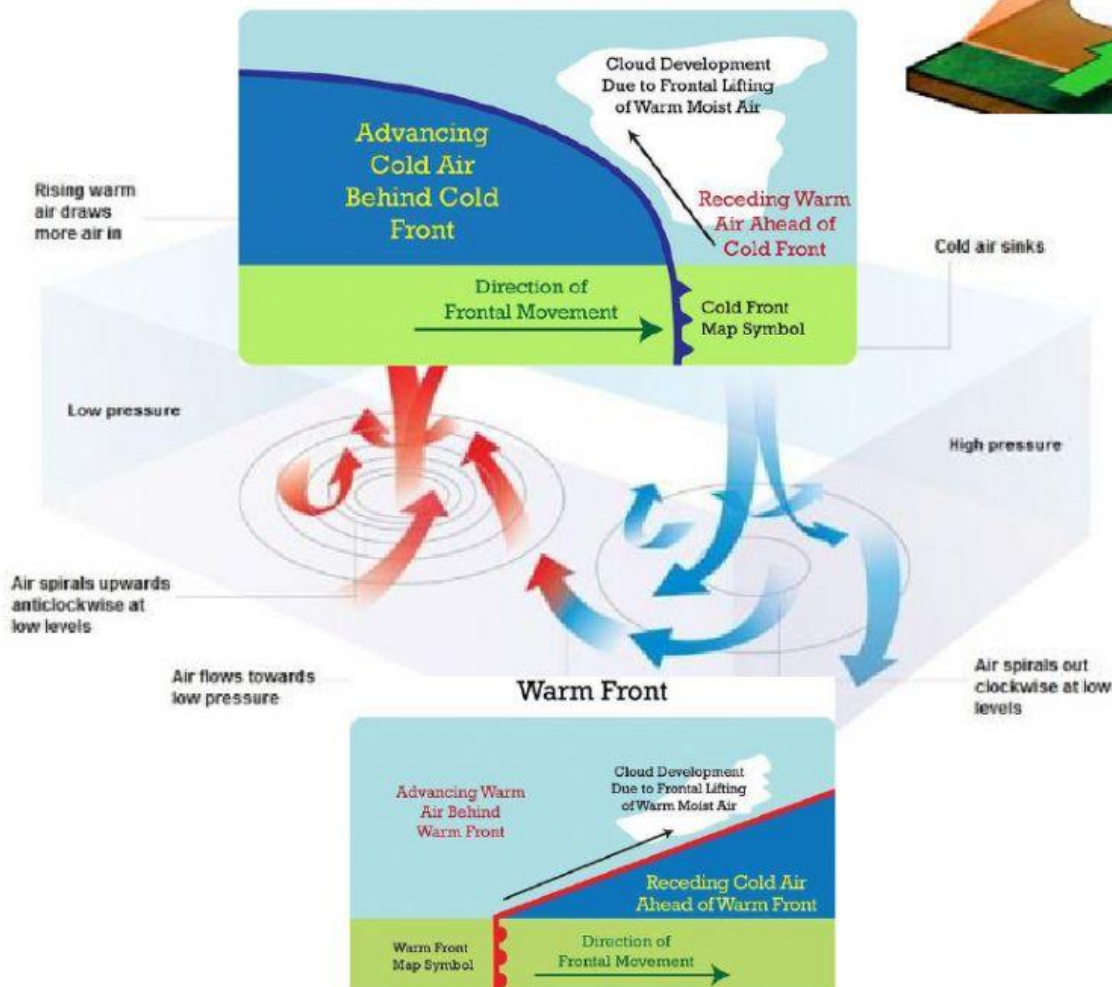
11.11 Hurricanes



Cold Front

Warm Front

Cold Front



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

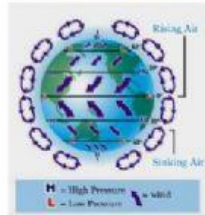


Temperature

- 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.

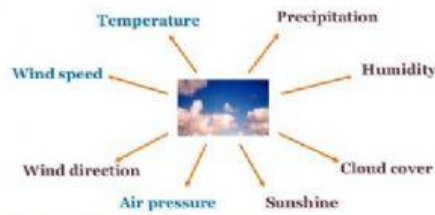


Convection cells



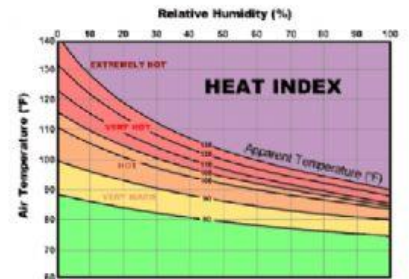
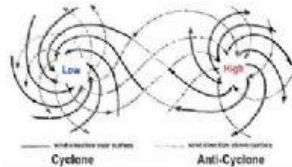
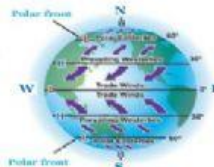
- The combination of global convection and Earth's rotation sets up a series of wind patterns called **convection cells**.

Introduction to Weather



Air and water vapor

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

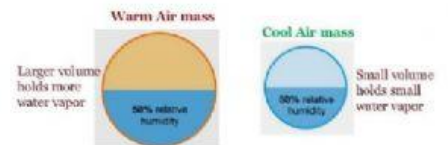


Precipitation

- 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

Relative Humidity

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



1. What is the eye of a hurricane?

2. How does a hurricane form?

3. Where does the storm get its energy?

4. What is storm surge?

5. Under what circumstances does a hurricane die?
6. Why was Hurricane Katrina so damaging?
7. What are hurricanes?
8. Where do most hurricanes begin to form?
9. How does a hurricane start and build so large?
10. What direction do hurricanes spin?
11. What are typhoons and cyclones?

