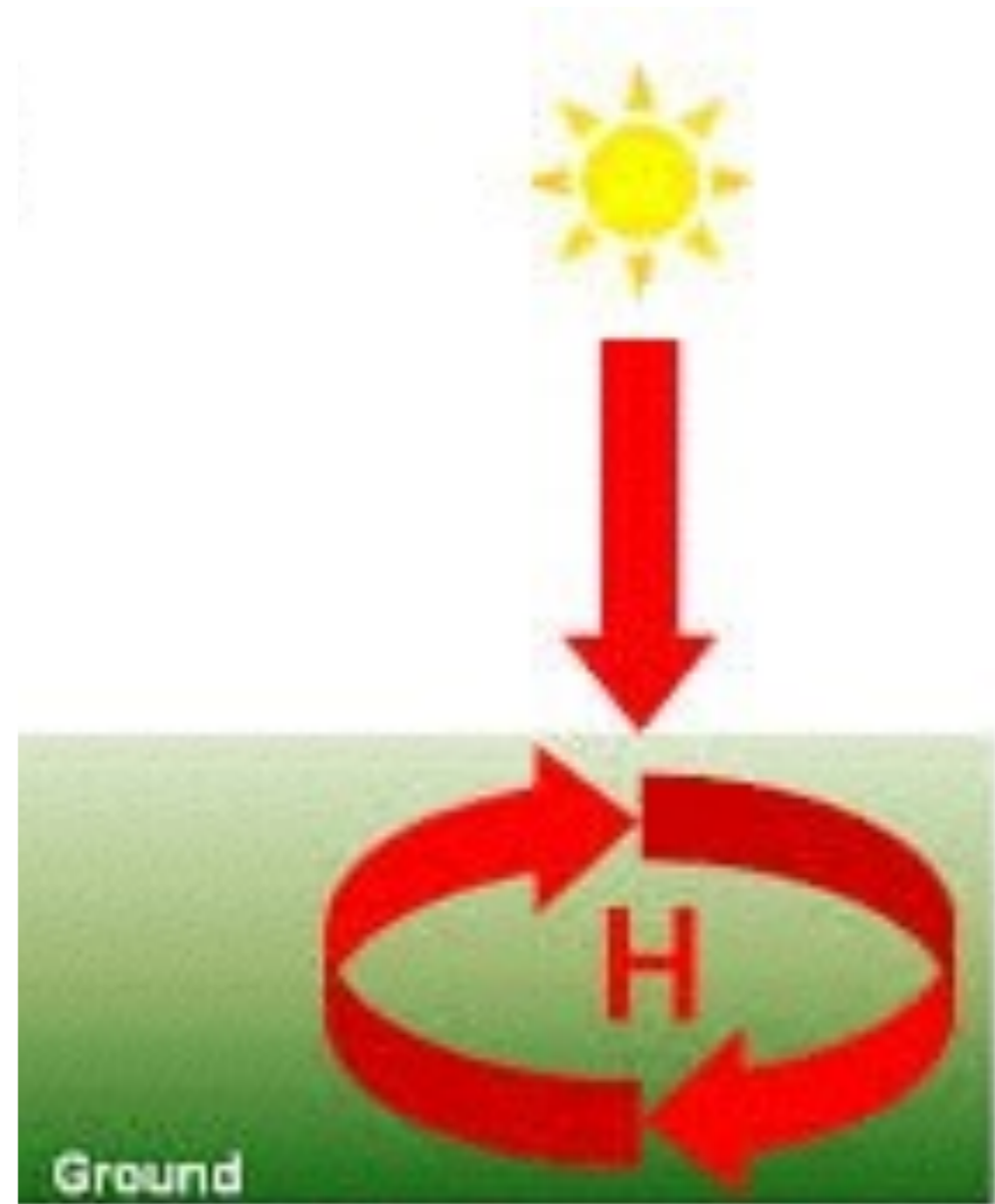


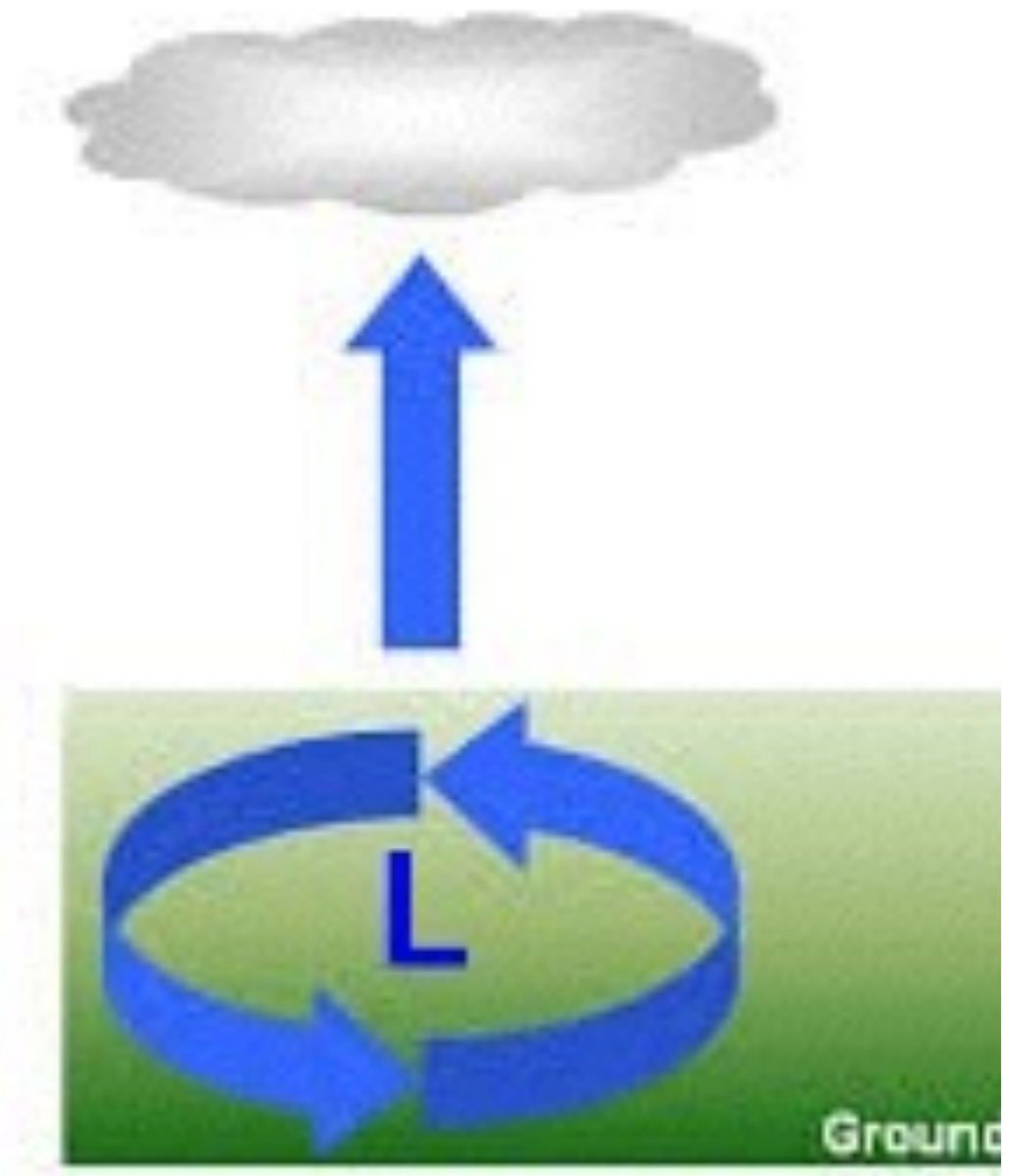
What is a High Pressure System?

- A Large body of circulating air with high pressure at its center and lower pressure outside of the system. Air moves away from the center.
- Weather: clear skies and fair weather



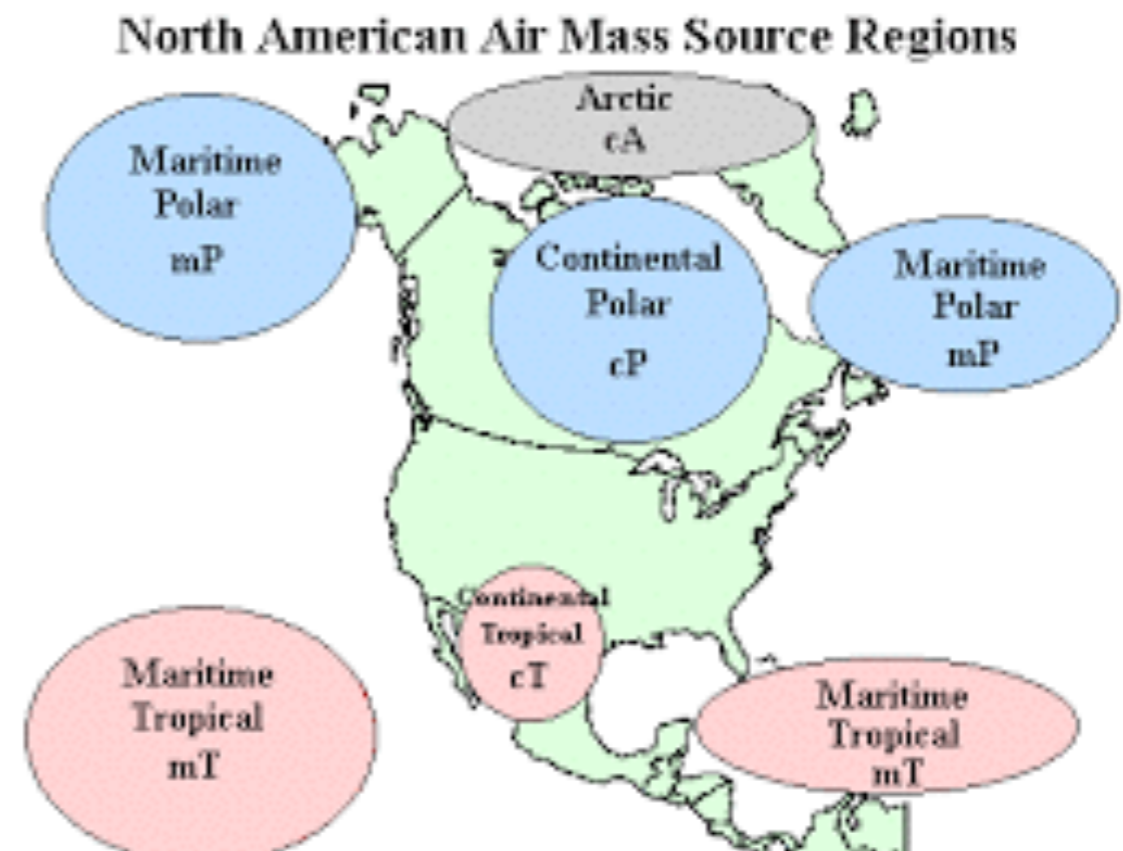
What is a Low Pressure System?

- A Large body of circulating air with low pressure at its center and higher pressure outside of the system. Air Moves towards the center
- Weather: clouds and precipitation.



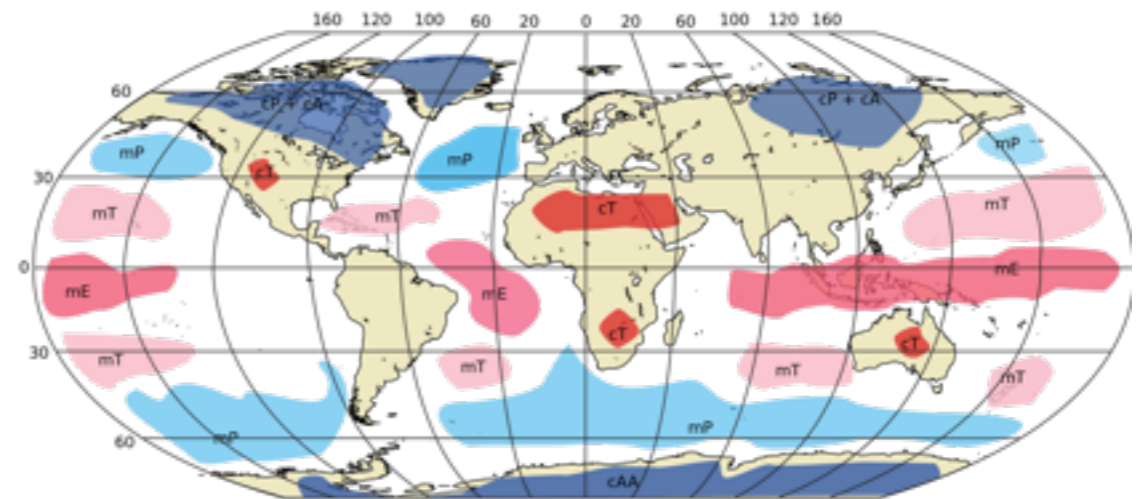
What is an Air Mass?

- Large bodies of air that have uniform temperature, humidity, and pressure. responsible for weather patterns. Can extend a thousand kilometers.



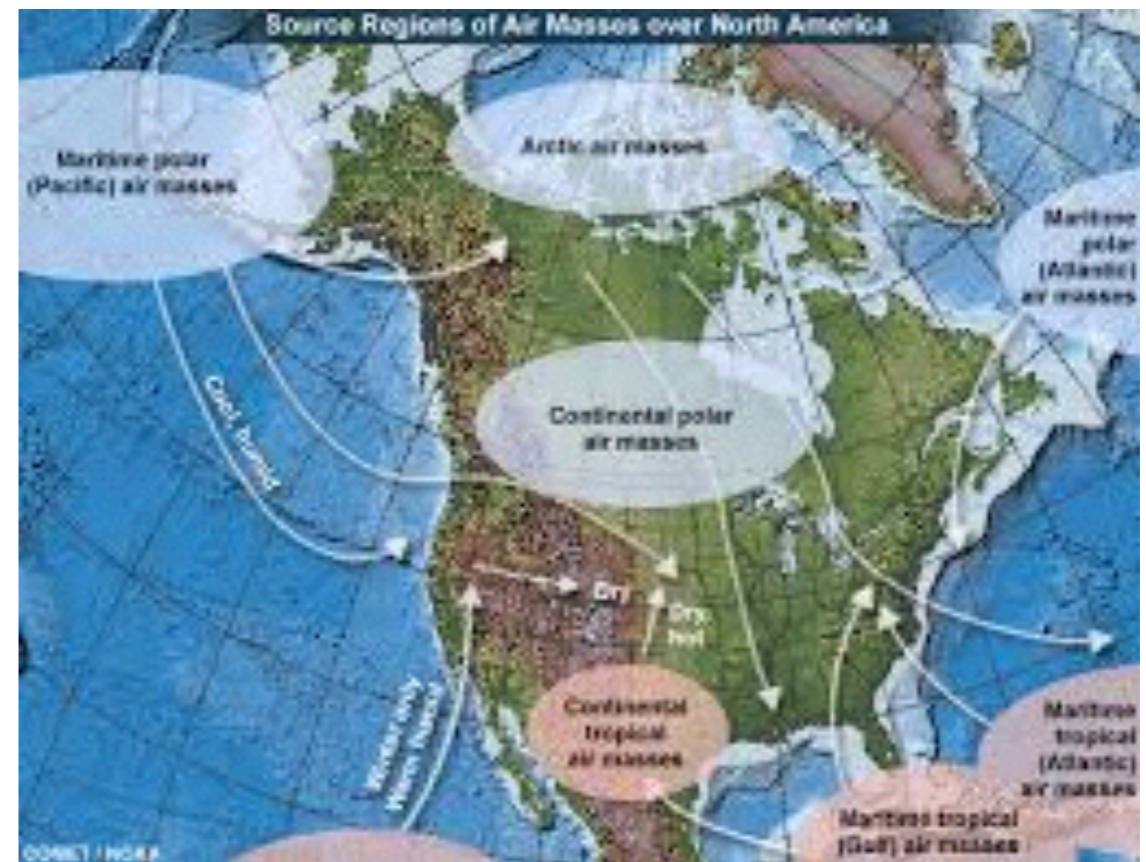
How are Air Masses Classified?

- Air Masses are characterized by their temperature and moisture.
Maritime: forms over water and is moist. Continental forms over land and is dry.
Polar forms in cold regions and is cold.
Tropical forms near the equator and is warm. Air masses have 2 letters to indicate their characteristics
mP = maritime polar.



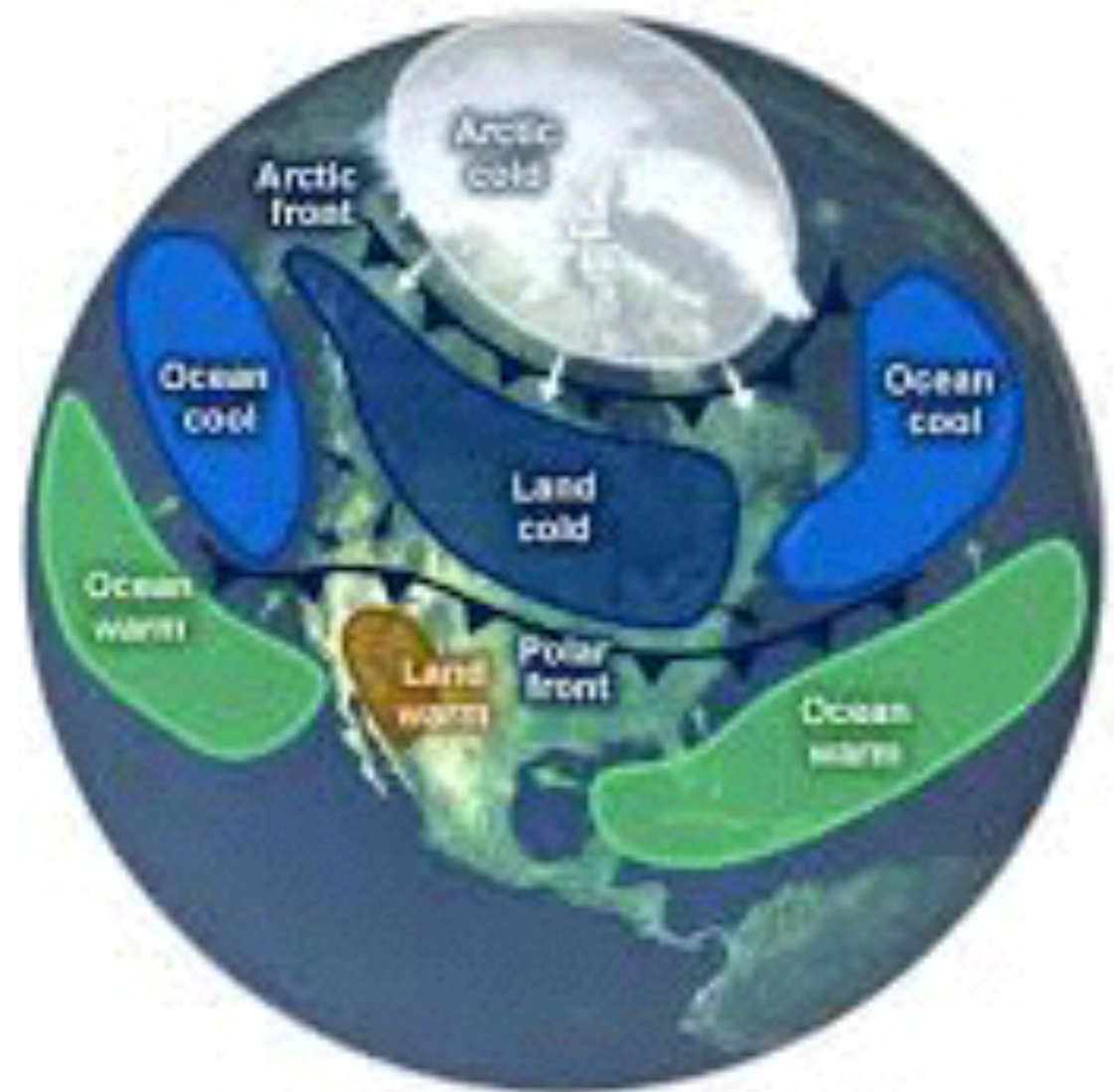
Source Region

- **Definition:** A large area of Earth's surface where large air masses of similar moisture and temperature form.
- **Example:** The Sahara Desert, The Gulf of Mexico, Northern Canada are all source regions of air masses.



Arctic Air Masses

- Air Masses that form over the Arctic, brings very cold, dry air.



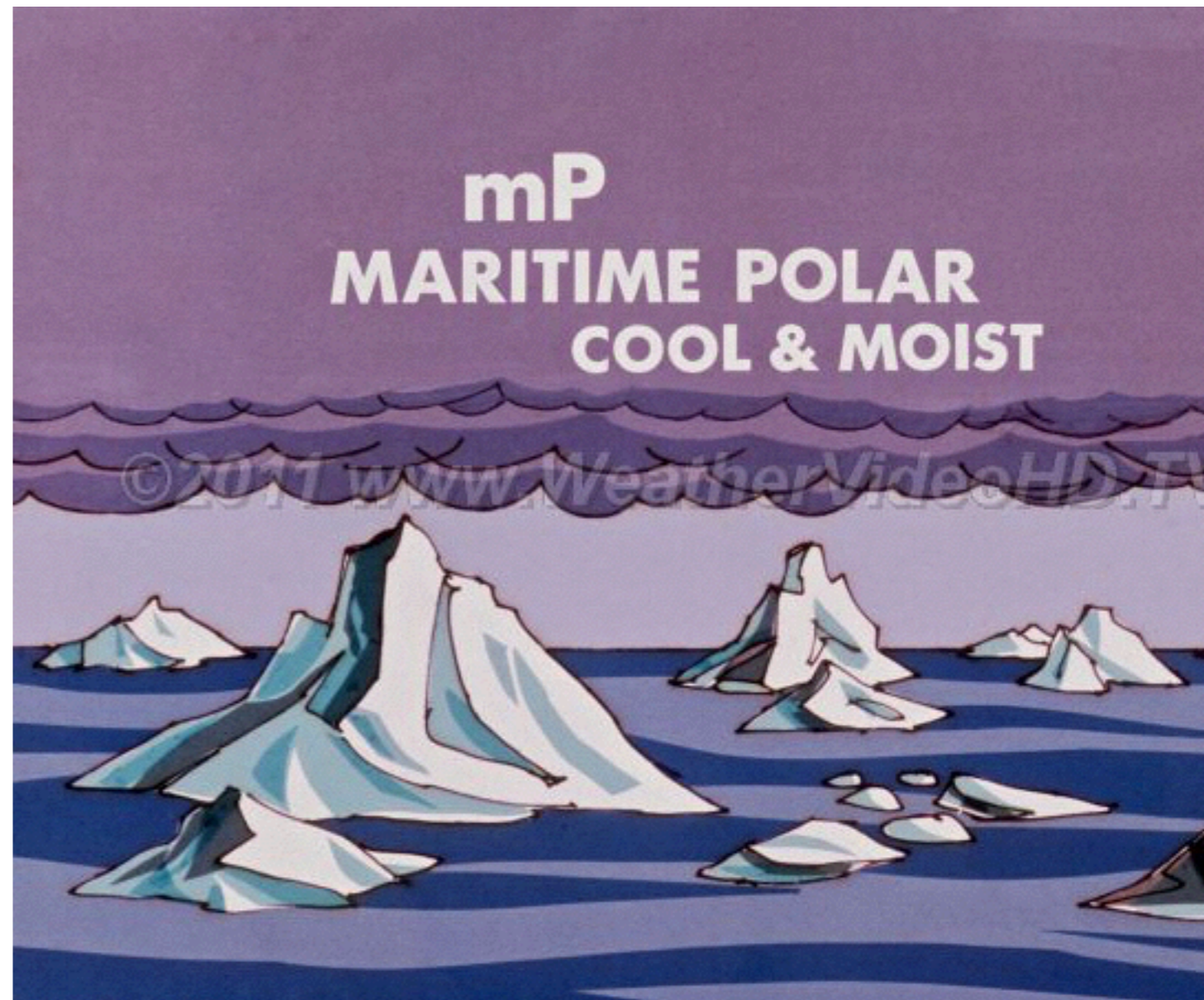
Continental Polar Air Mass

- Cold Dry Air that is fast moving.



Maritime Polar Air Masses

- Forms over the Northern Atlantic and Pacific Ocean. Maritime polar air masses are cold and wet. Brings cloudy, rainy weather.



Continental Tropical

- Forms over deserts and creates dry warm air. Brings clear skies and high temperatures.



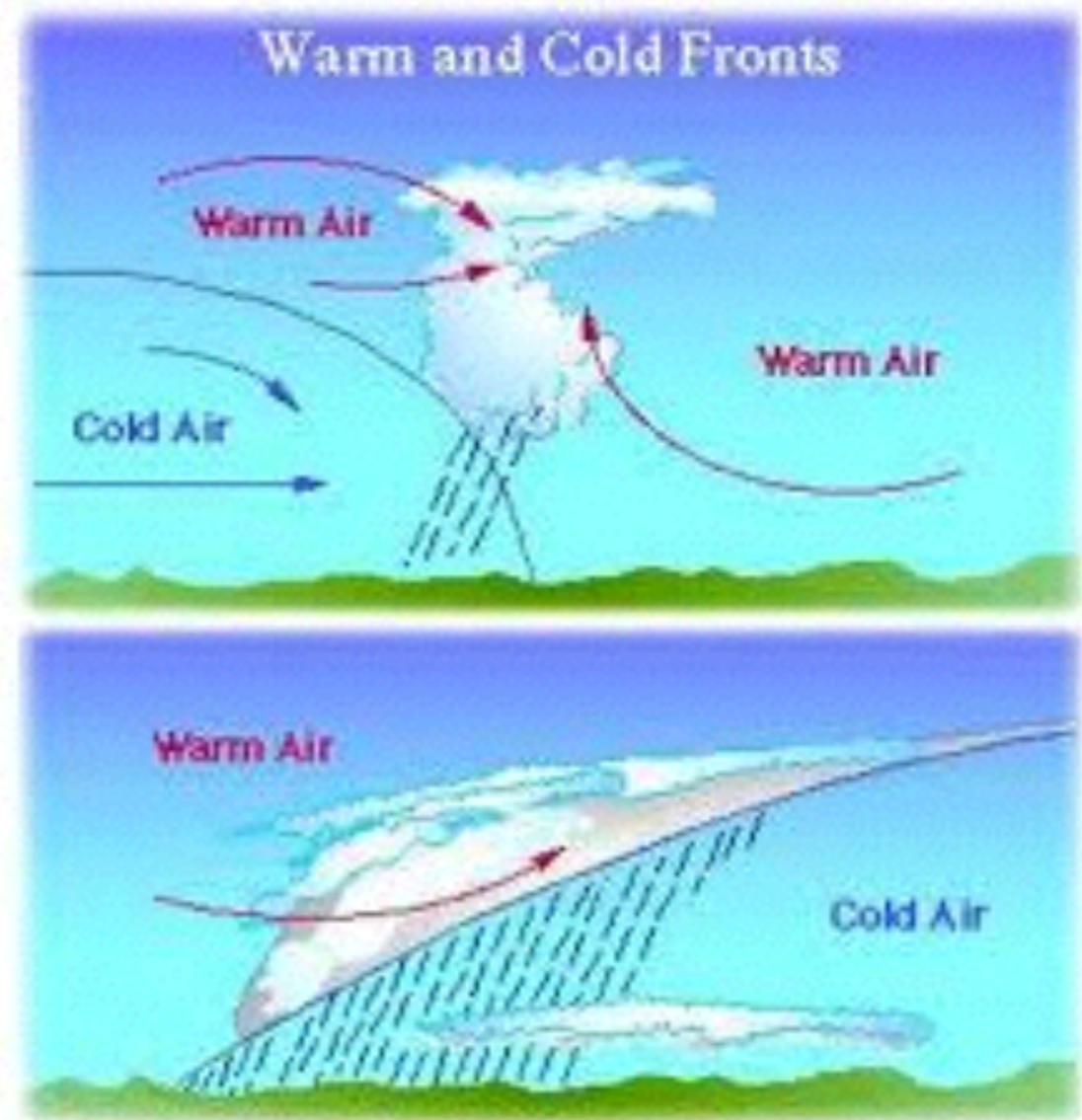
Maritime Tropical

- Forms over the Atlantic, Gulf of Mexico, and Pacific. Contains Wet, hot air. Creates heavy precipitation.



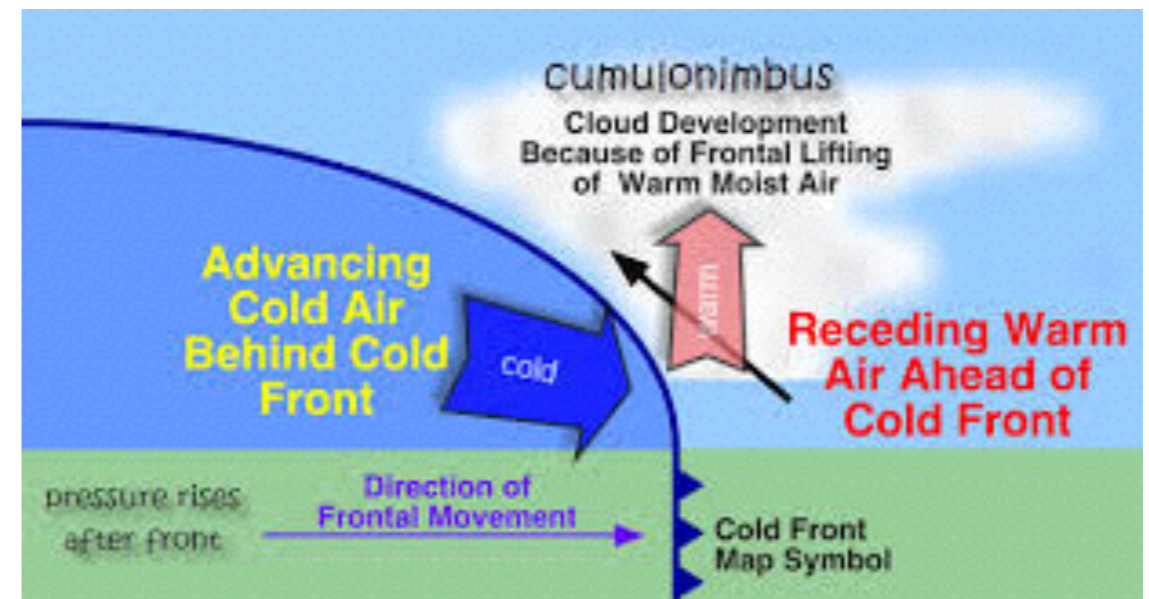
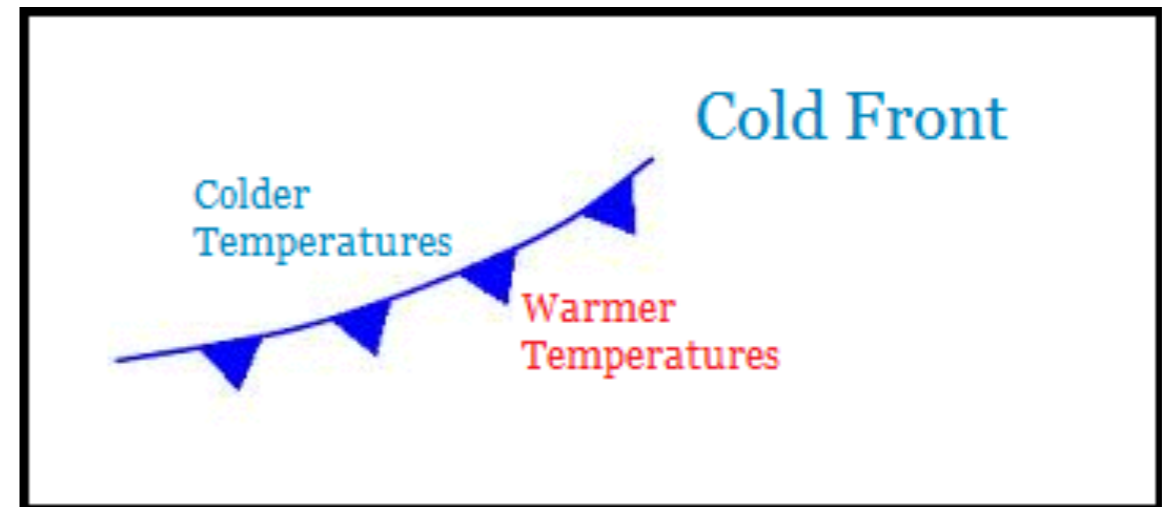
Front

- **Definition:** The boundary between 2 air masses. Weather at the front is usually stormy.
- **Examples:** Cold Front, Warm Front, Occluded Front, Stationary Front



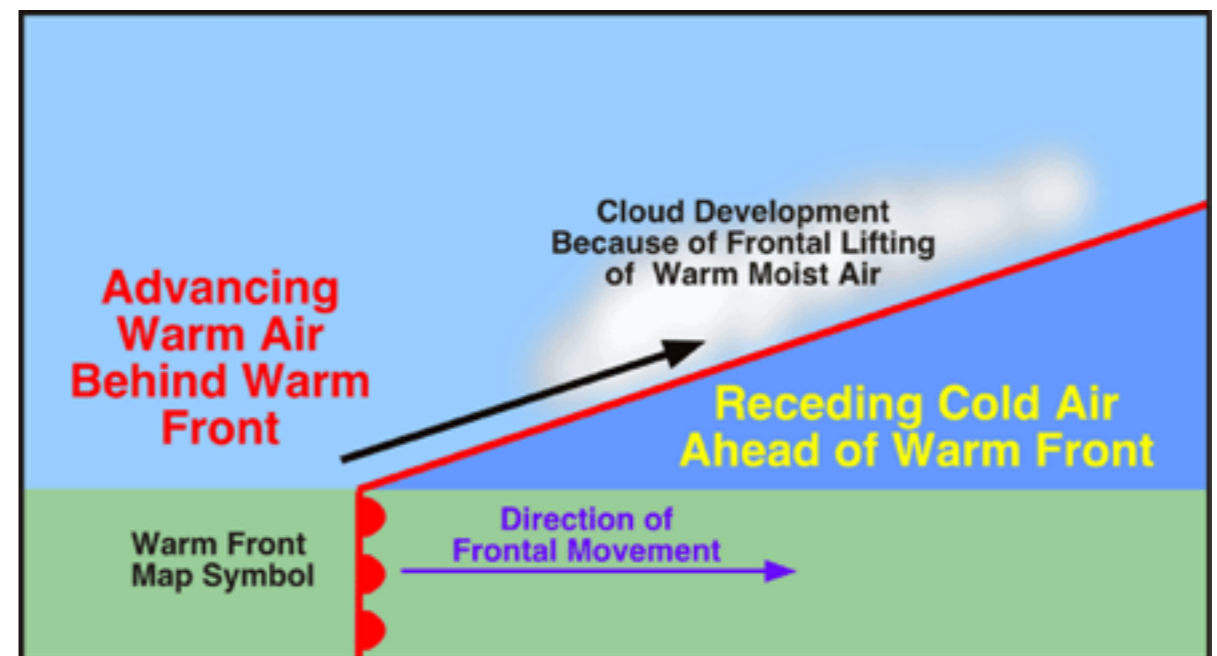
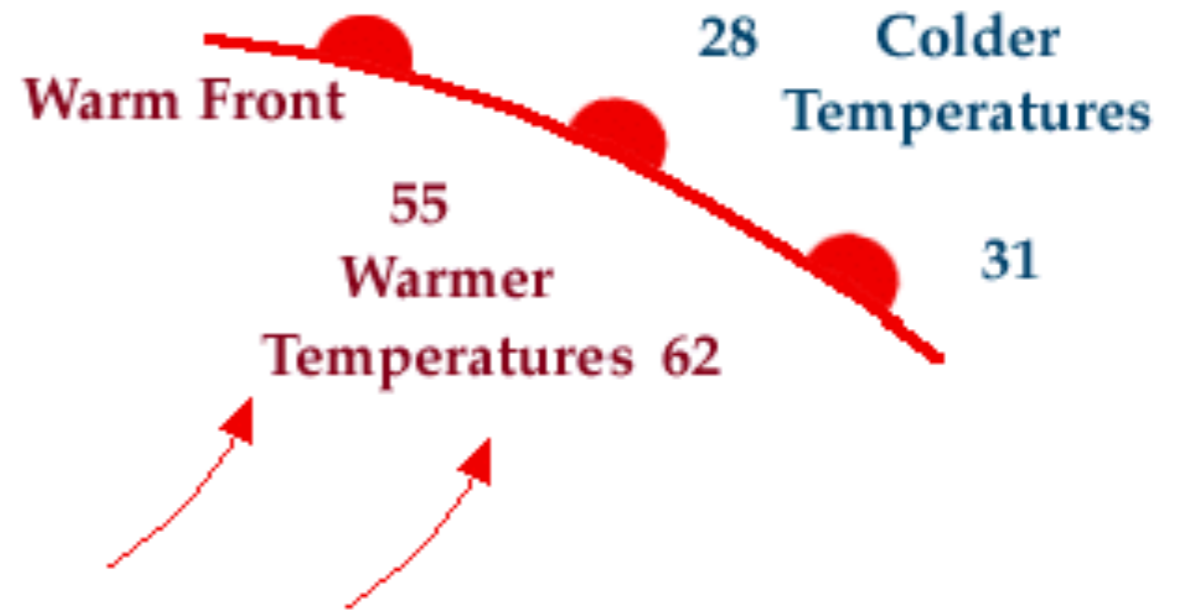
Cold Front

- **Definition:** Cold air masses meet and displace a warm air mass by pushing it up.
- **Weather:** thunderstorms, heavy rain or snow. Cooler weather follows.



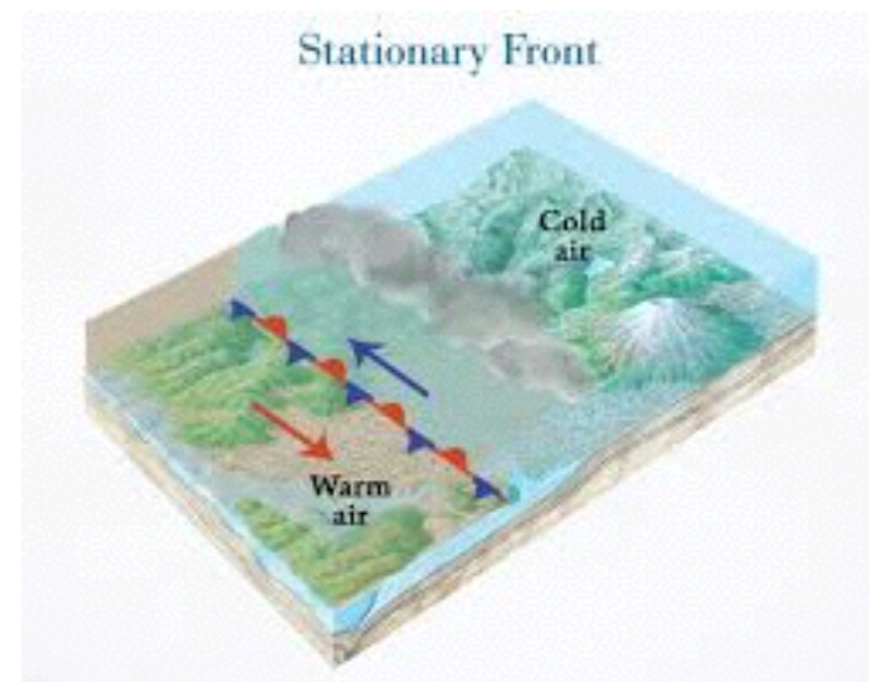
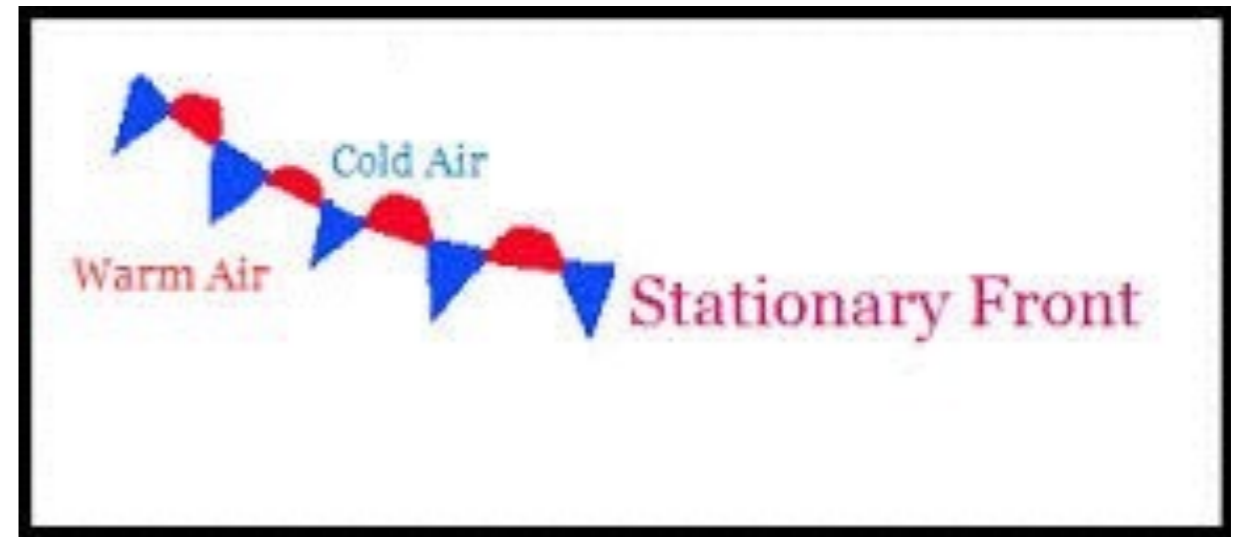
Warm Front

- **Definition:** Warm air mass catches up to a slower moving cold air mass and slowly moves over it.
- **Weather:** drizzly precipitation, and clearer warmer weather after the front passes.



Stationary Front

- **Definition:** When a warm and cold air mass meet, but little horizontal movement occurs.
- **Weather:** produces drizzly precipitation



Occluded Front

- **Definition:** A fast moving cold air mass overtakes a warm air mass and then meets another cold air mass.
- **Weather:** Cooler temperatures and large amounts of precipitation over many days.

