



### What is an AIR MASS?

- An air mass is a **huge body of air** that influences weather.
- Scientists classify air masses based on: **TEMPERATURE** and **HUMIDITY**

**WARM**

**COLD**

**WET**

**DRY**

Air Masses are named based on where they FORMED...

**WARM TROPICAL** Forms in the tropics

**COLD = POLAR** Forms in polar regions

**WET = MARITIME** Forms over water (means sea... wet)

**DRY = CONTINENTAL** (means land... dry) Forms over land

### How are Air Masses named?

	MOIST HUMIDITY DRY	
	WARM	DRY + WARM
TEMPERATURE	<b>MARITIME TROPICAL</b>	<b>CONTINENTAL TROPICAL</b>
	<b>MARITIME POLAR</b>	<b>CONTINENTAL POLAR</b>

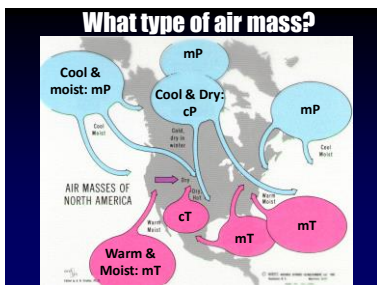
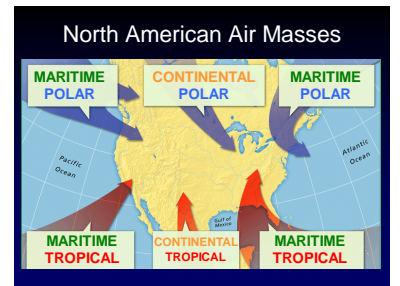
For example...

If the source region is the gulf of Mexico and the air comes to Durham, North Carolina...

It will feel warm and moist to us: maritime tropical (mT).

If it comes from central Canada...

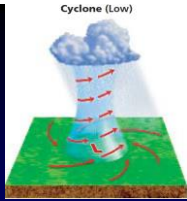
It will feel cold and dry to us: continental polar (cP)



### How do these air masses move?

### Low Pressure and High Pressure

- Low Pressure Systems:**
  - Cyclones
  - Wind blows TOWARD the center
  - CCW circulation (Counter clockwise)
  - Storms and precipitation because as air rises, it becomes cooler, condensing to form clouds and resulting in precipitation.



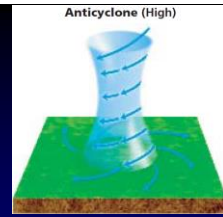
A swirling center of low air pressure is called a cyclone, from a Greek word meaning "wheel." Cyclones are usually called "low"—L on a weather map.

### Low Pressure and High Pressure

• **High Pressure Systems:**



- Anticyclones
- Wind blows AWAY FROM the center
- CW circulation (Clockwise)
- Dry weather because cool air falls and becomes warmer and its relative humidity drops.



Anticyclones are high-pressure centers of dry air. Anticyclones are usually called "highs"—H on a weather map.

Air Mass	Abbreviation	Description of Temperature	Moisture Content	Type of Weather	Where does it form	Time of year
Continental Arctic						
Continental Polar						
Maritime Polar						
Maritime Tropical						
Continental Tropical						