



\* air always moves from High Press.  
→ Low pressure! Usually low  
temp. to High temp.!

Anemometer → measures wind speed.

Sea Breeze

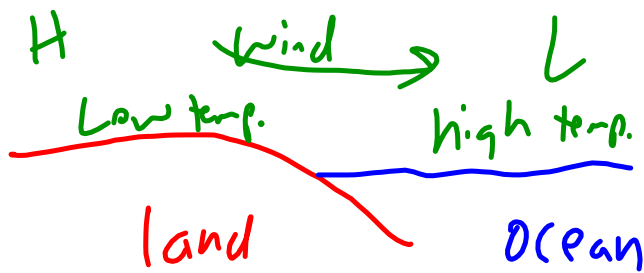
Day

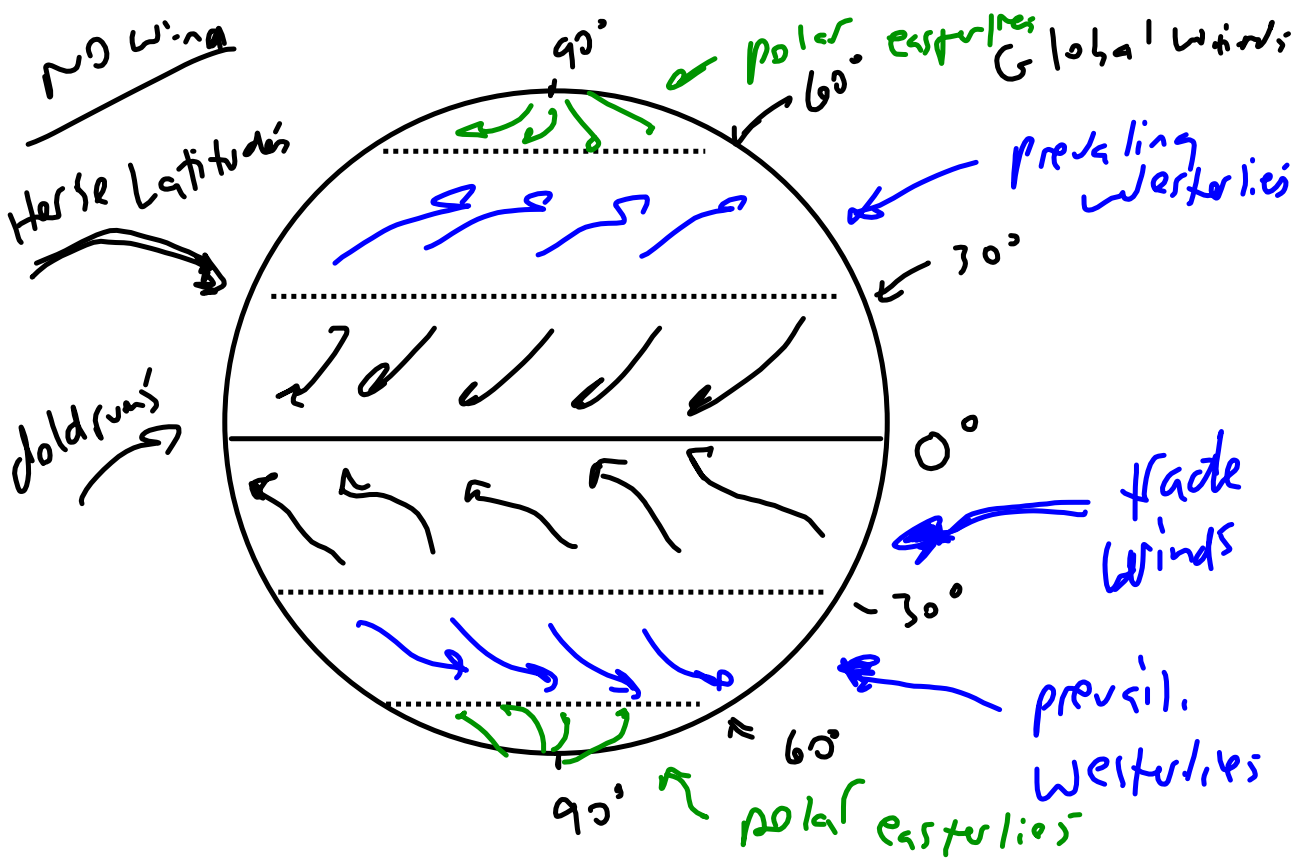


Name of winds are where they originate

Land Breeze

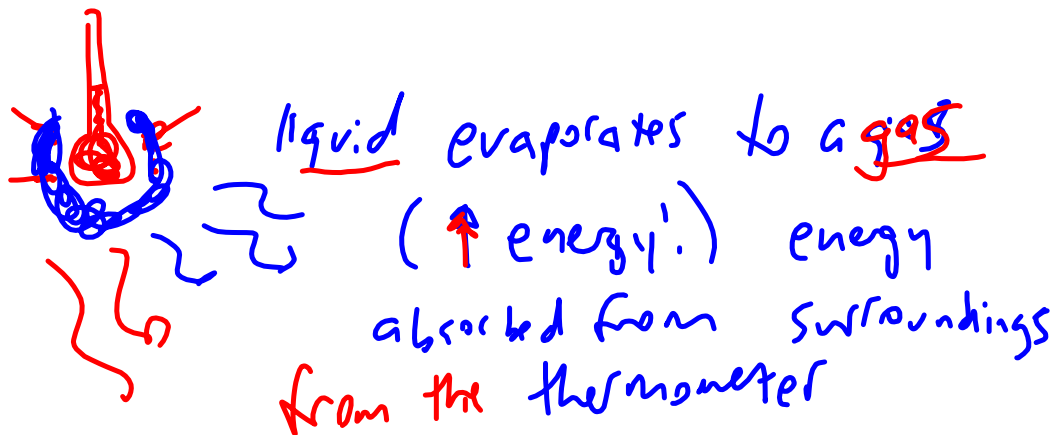
Night





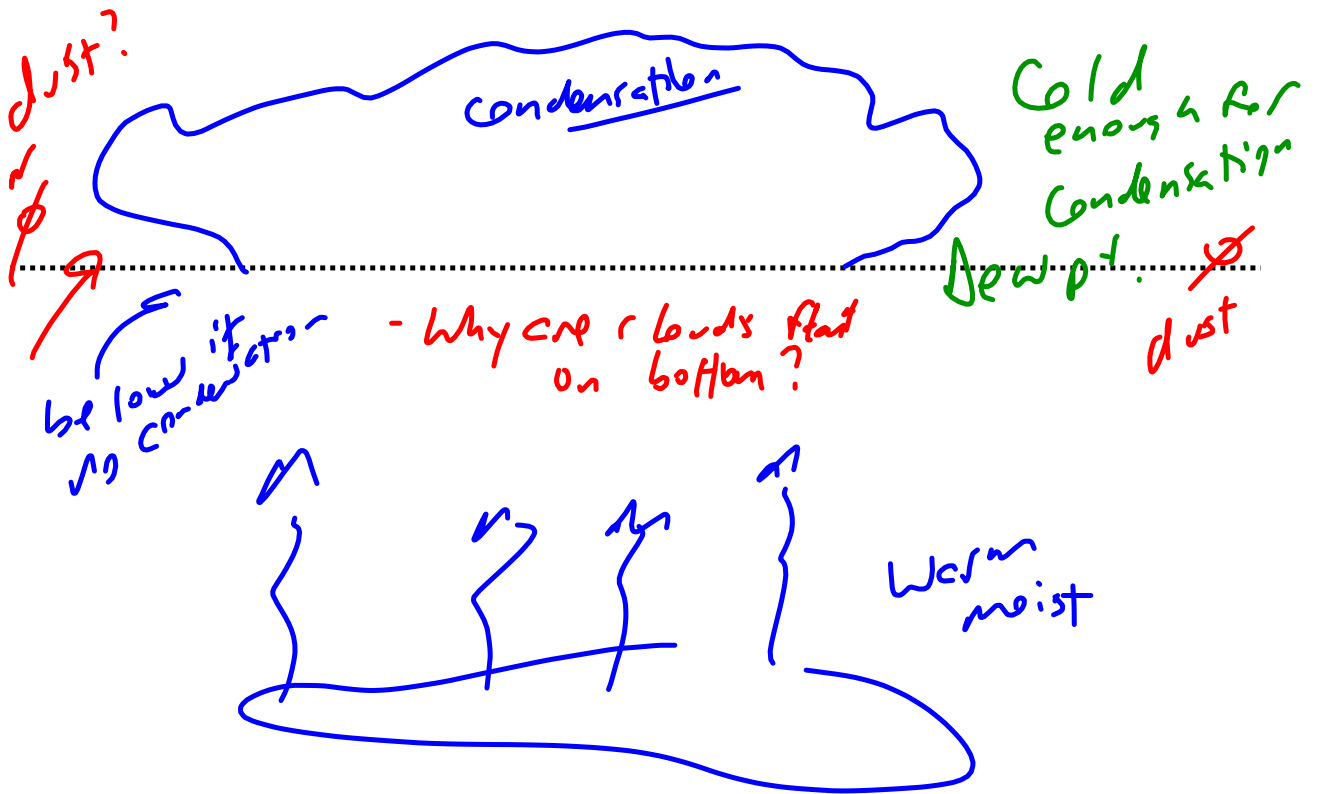
- Relative Humidity  
2 thermometers, 1 wet, 1 dry

\* IF hum.  $\downarrow$  wet bulb  $\Delta \uparrow$   
hum.  $\uparrow$  wet bulb  $\Delta \downarrow$



Clouds : 3 factors to form

- Condensation ptc's. (smoke)
- humidity
- ↓ pressure. / temp.



} main cloud types:

Cirrus - wispy, feathery, high alt.  
made of ice



Cumulus - puffy, tall, turbulence  
Medium altitude



Stratus - blanket the whole  
sky, low altitude



(Nimbus) - rain

(Alto) - high altitude

Precipitation: any form of  $H_2O$  falling out of cloud.

Rain: Water  $\uparrow$  .5 mm

Sleet: ice  $\downarrow$  5 mm

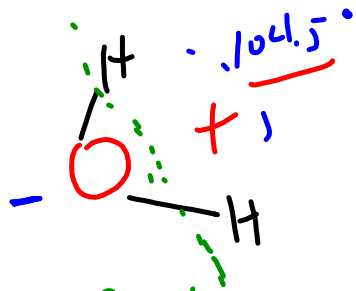
Freezing rain: rain that freezes on ground

Snow: 6 sided, hollow center

Hail: layered ice ball  $\uparrow$  5 mm

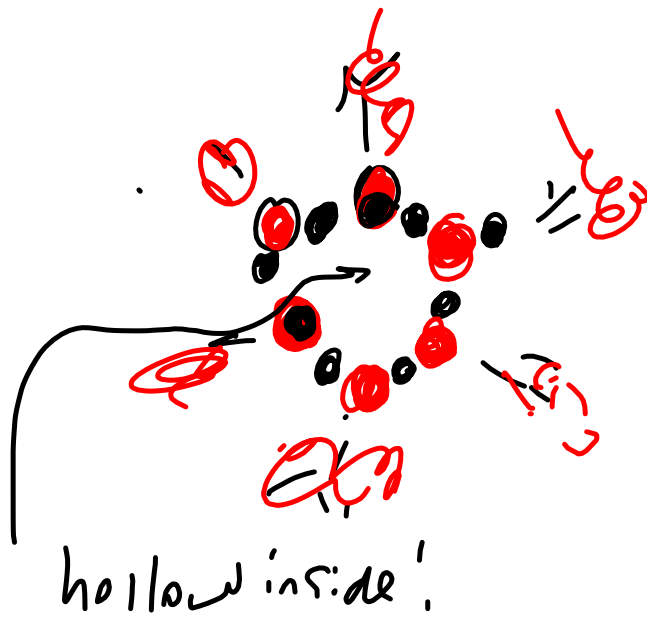


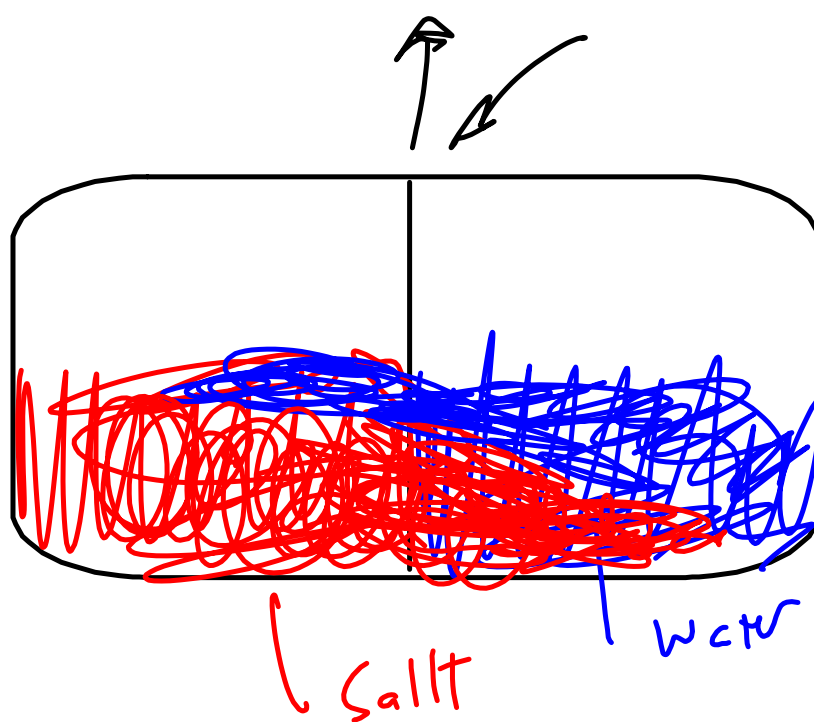
Polar



Why do snowflakes have 6 sides, & hollow center?

- Motion of H<sub>2</sub>O is enough to overcome polar bonds of the molecules  
stays liquid until ↓ temp.
- motion of H<sub>2</sub>O slows to 3.93°C  
hydrogen bonds form w/ 6 molecules





## Air Masses temp. & moisture content

Tropical - Warm, humid

Polar - Cold, dry

Maritime - Warm, humid

Continental - dry, cooler

Maritime tropical - hot, humid

Maritime polar - cool, humid

Continental tropical - hot, dry

Cont. polar - cool, dry

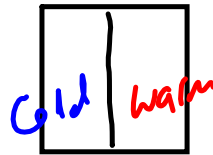
Front: boundary between air masses



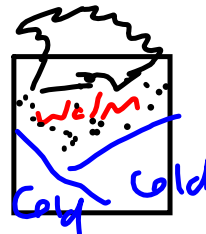
→  
Cold front  
storms  
rain  
fast



→  
Warm front  
light  
drizzle  
slow



stationary  
not moving  
light  
drizzle



→  
Occluded front  
large  
storms  
fast

Cyclone



Fast moving  
Counter clockwise  
in N.H.

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Anticyclone



Slow moving  
Clockwise in  
N.H.