

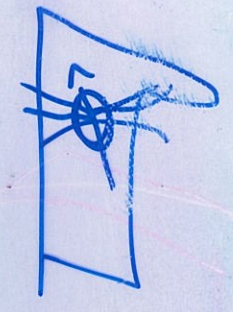
Unequal Heating →

Temp. → Density → float
Dif. → Dif. → Sink

D. Air movements

i. Why does air move in the atmosphere?

- air currents are vertical movements of air.
- wind is horizontal movements of air.
- Wind is described by both air direction and speed.
- A wind is named for the direction from which it blows.
- A wind vane is a pointer that shows the direction.
- An anemometer is an instrument that measures wind speed.
- Circulation of air is affected by the Earth's rotation.



#12

Which factor is most directly related to wind velocity?

(1) dewpoint (3) cloud type
 (2) relative humidity (4) pressure gradient

E. Atmospheric transparency

- All of the gases in our atmosphere are transparent (see through)
- What types of substances might block our view in the air?
 + fog, steam, precipitation, dust, smoke, aerosols
- Visibility is the horizontal distance through which the eye can distinguish objects in miles.
- Cloud cover is the fraction of the sky that is blocked by the clouds.

III. Weather Stations

- Know how to read weather stations.
- Fill in the following data from the sample weather station
 Wind direction: = South amount of precip: 0.30 inches
 Wind speed: = 10 knots barometric pressure: 1000.0 mb
 Temperature: = 54°F cloud cover: 100%
 Dew point: = 42°F



Pressure: 1000.0 mb
 Write: 10 in. in front: Wind speed: 10 knots
 add: 32 to get Fahrenheit: 54°F