



# Wind

## Weather Instruments

- Wind speed is measured by an \_\_\_\_\_



- It comes from the Greek \_\_\_\_\_ which means \_\_\_\_\_

- \_\_\_\_\_ is measured by a barometer



- It comes from the Greek \_\_\_\_\_ which means \_\_\_\_\_

## How are winds named?

## What is wind?

- Winds are \_\_\_\_\_ flows of \_\_\_\_\_
- Winds blow from areas of \_\_\_\_\_ pressure to areas of low \_\_\_\_\_
- Nature tries to \_\_\_\_\_

## What causes wind?

## What is air pressure?

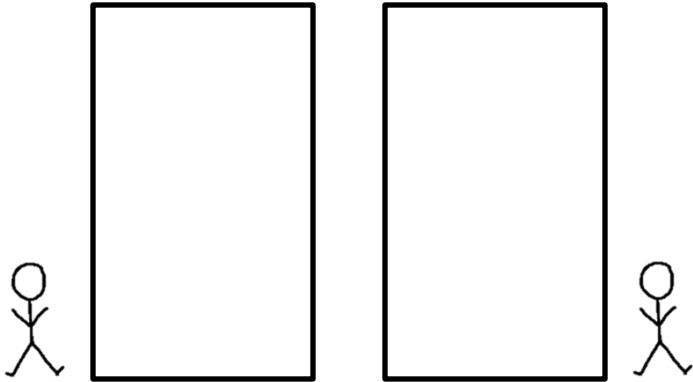
- Pressure describes the \_\_\_\_\_ of air to \_\_\_\_\_ or to sink at any given \_\_\_\_\_ or time.
- What makes air rise? (Or magma, or water, or any other particles)
- Air tends to rise or sink as a result of its \_\_\_\_\_

## Temperature, Density, and Pressure

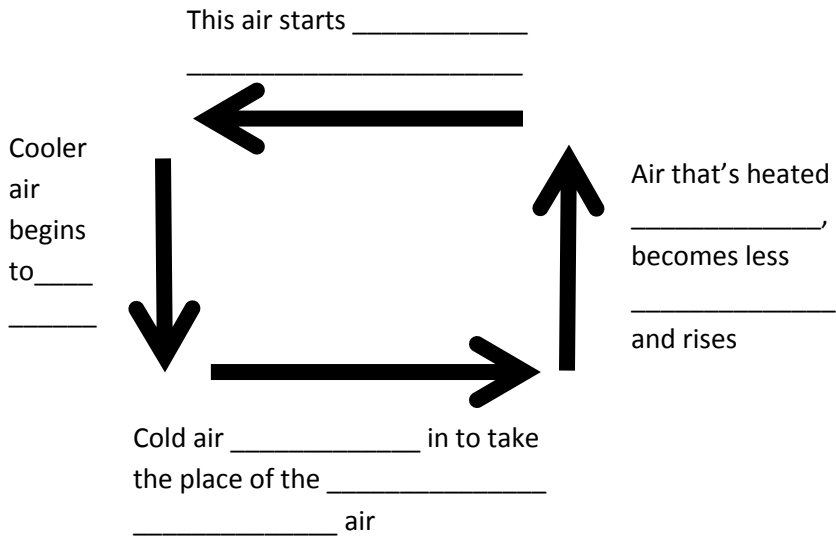
- Air density is determined by its \_\_\_\_\_
- Hot air \_\_\_\_\_, so it has \_\_\_\_\_ pressure
- Cold air \_\_\_\_\_, so it has \_\_\_\_\_ pressure
- Variations in temperature control pressure, and \_\_\_\_\_
- When air \_\_\_\_\_ in warm regions where \_\_\_\_\_ is low (areas like the tropics), air also \_\_\_\_\_ in cold regions where pressure is \_\_\_\_\_ (areas like the poles).
- These processes are called convection and \_\_\_\_\_



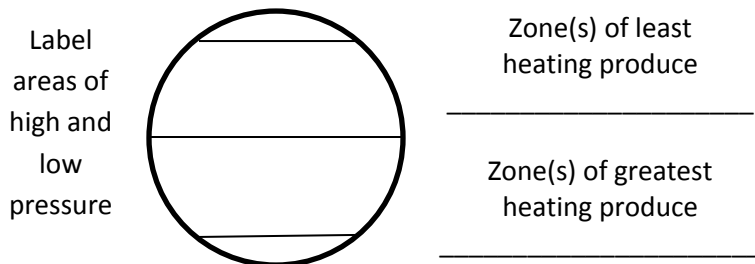
Draw arrows, fill in particles, describe temperature and density



Movement of wind:

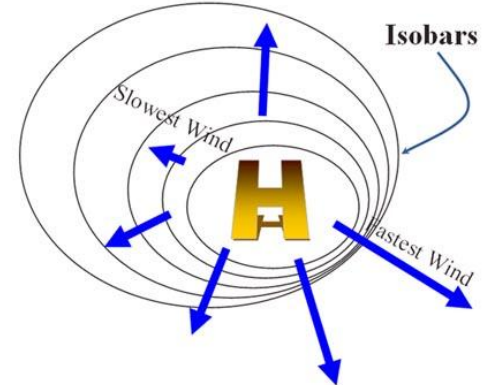


Global pressure and wind

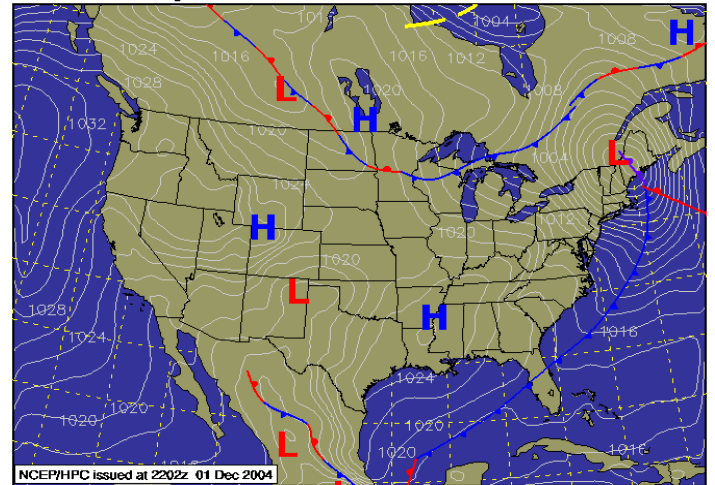


Wind direction and strength

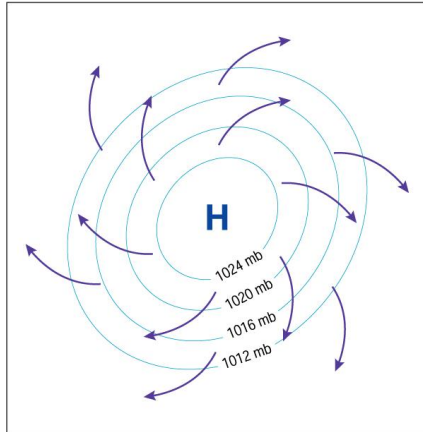
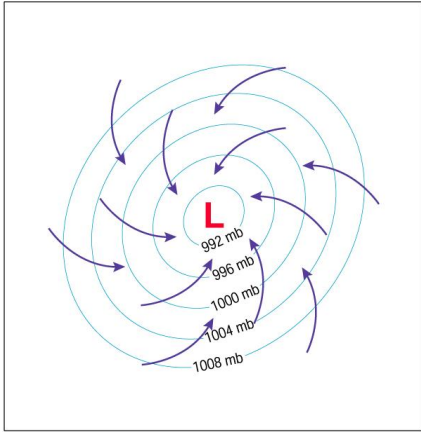
- Wind strength depends on the difference in \_\_\_\_\_ between high and \_\_\_\_\_ pressure systems, and the \_\_\_\_\_ between them.
- This is called the \_\_\_\_\_, it is a similar concept to the physical \_\_\_\_\_ between two places, shown on a contour map.
- Pressure is shown by \_\_\_\_\_ on a \_\_\_\_\_ map.



Analysis valid 2100 UTC Wed 01 Dec 2004

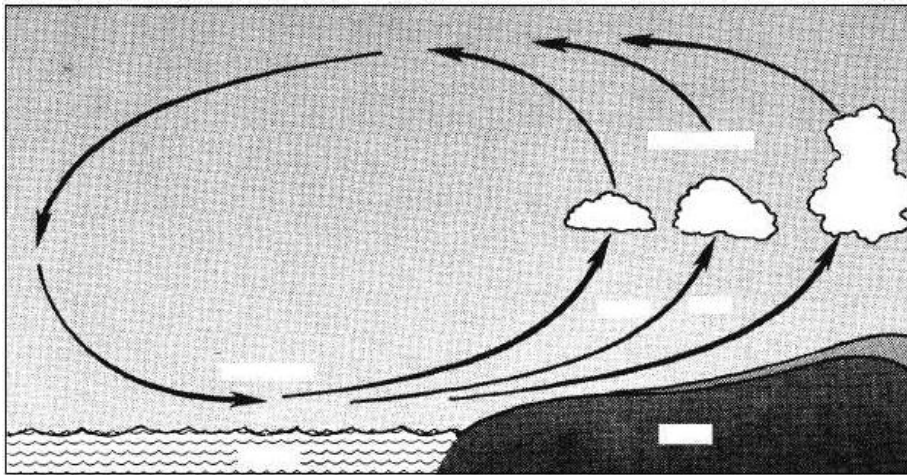


Correctly draw the direction of wind flow around both high and low pressure areas (in the Northern Hemisphere)



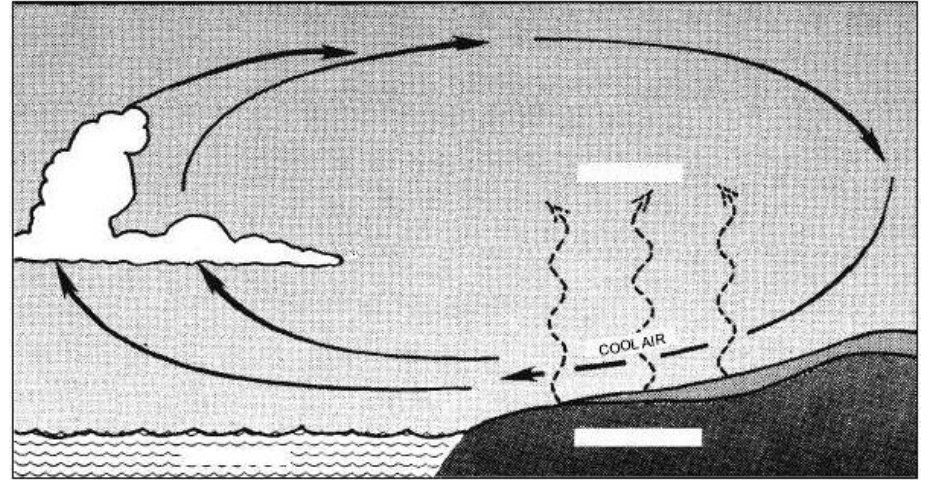
Sea Breeze or land breeze?

Correctly label each diagram and include the locations of high and low pressure



Sea Breeze or land breeze?

Correctly label each diagram and include the locations of high and low pressure



Is air rising or sinking at the equator? \_\_\_\_\_

What about at 30 degrees North? \_\_\_\_\_

