**Global Winds**

Why Air Moves

* The Movement of air caused by differences in Air Pressure this is called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_:** air that moves horizontally, or parallel to the ground, caused by differences in air pressure
* The greater the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**difference, the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**the wind moves.

Causes of Pressure Difference

* Generally caused by the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**heating of the earth.
  + The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**receives more direct solar energy than other latitudes, so at the equator it is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
  + Therefore the air is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**dense-**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
  + This creates **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**pressure

Cold Air

* Cold air is more **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**and sinks- This creates high pressure
* The **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**pressure is found along the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
  + What do you think is happening around the equator is the air sinking or rising?

Circular Patterns

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-** a giant loop of moving air that includes a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**belt and the calm regions that border it
* Convection Cells are separated by **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* Pressure Belts are found every **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of latitude.
  + Ex. At about 30̊north and 30̊ south air cools and starts to sink (Horse latitudes and Doldrum)

Coriolis Effect

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**- the influence of Earth's **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**of objects that move over Earth's surface, such as wind
* Northern Hemisphere winds traveling **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**curve to the east and winds traveling **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**curve to the west.

Global Winds

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**-the wind belts that extend from the poles to **\_\_\_\_\_**and **\_\_\_\_\_** latitude in both hemispheres
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**-prevailing winds that blow from west to east between **\_\_\_\_\_** and **\_\_\_\_\_** latitude in both hemispheres.
* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**-Prevailing winds that blow northeast from **\_\_\_\_\_**south and **\_\_\_\_\_** north latitude to the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.

The Doldrums

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**- The trade winds of the Northern and Southern Hemispheres meet in an area around the equator
  + Very **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**wind because the warm rising air creates low pressure
  + Means **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**or dull

Horse Latitudes

* At about 30 ̊North and 30 ̊South Latitude, sinking air creates an area of high pressure. These areas are called **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**.
  + Given when ships were struck in this windless area, horses where sometimes thrown overboard to save drinking water for the sailors.
  + Sinking air is very dry and clear
  + **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**are located in the horse latitudes

Jet Streams

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**are a narrow belt of strong winds that blowing the upper **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* They can reach a speed of 400 km/hr.
* They affect the movement of storms
* Do not follow regular path

Local Winds

* **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** generally move short distances and can blow from any **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
* Local geographic features, such as a **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**or a mountain can produce a temperature **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**that can cause local winds.
  + Ex. During the day warm land air rises and the cold ocean air replaces it. (**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**&**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**)
  + Ex. During the night the land cools faster than water, so the wind blows toward the ocean

Mountain and Valley Breezes

* These are an example of local winds. Campers in mountainous areas may feel a warm afternoon quickly change into a cold night soon after sunsets.