

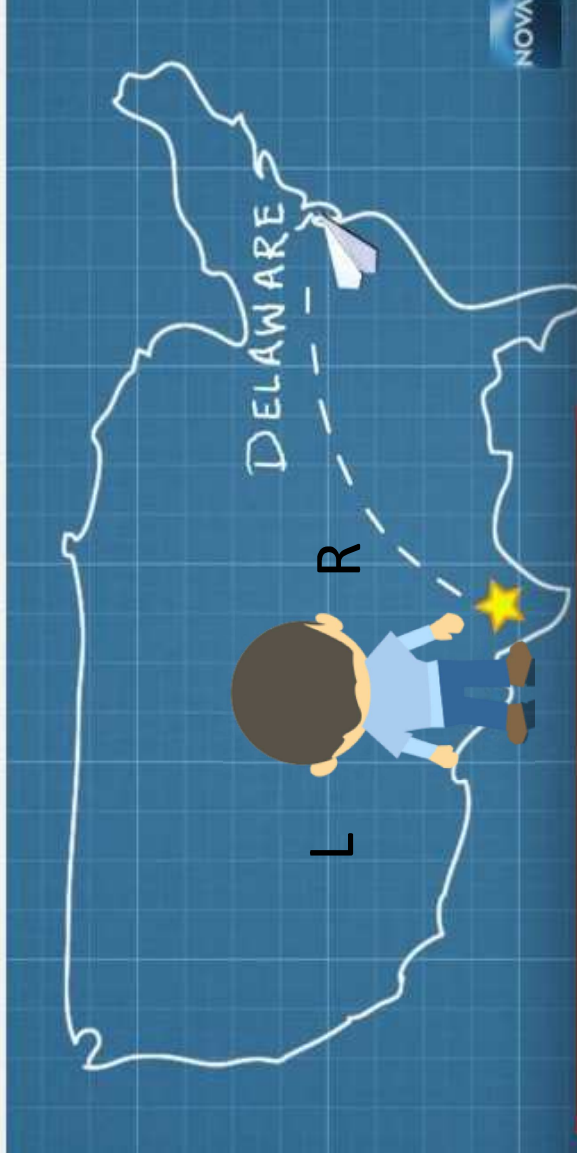
Global Winds

- **Reminder-** Earth's surface is not heated equally. More radiation is absorbed at the poles than the equator.
- **Therefore:** The atmosphere balances these differences by acting as a giant heat transfer system.
- **Warm air rises up to the poles and cool air sinks down toward the equator**

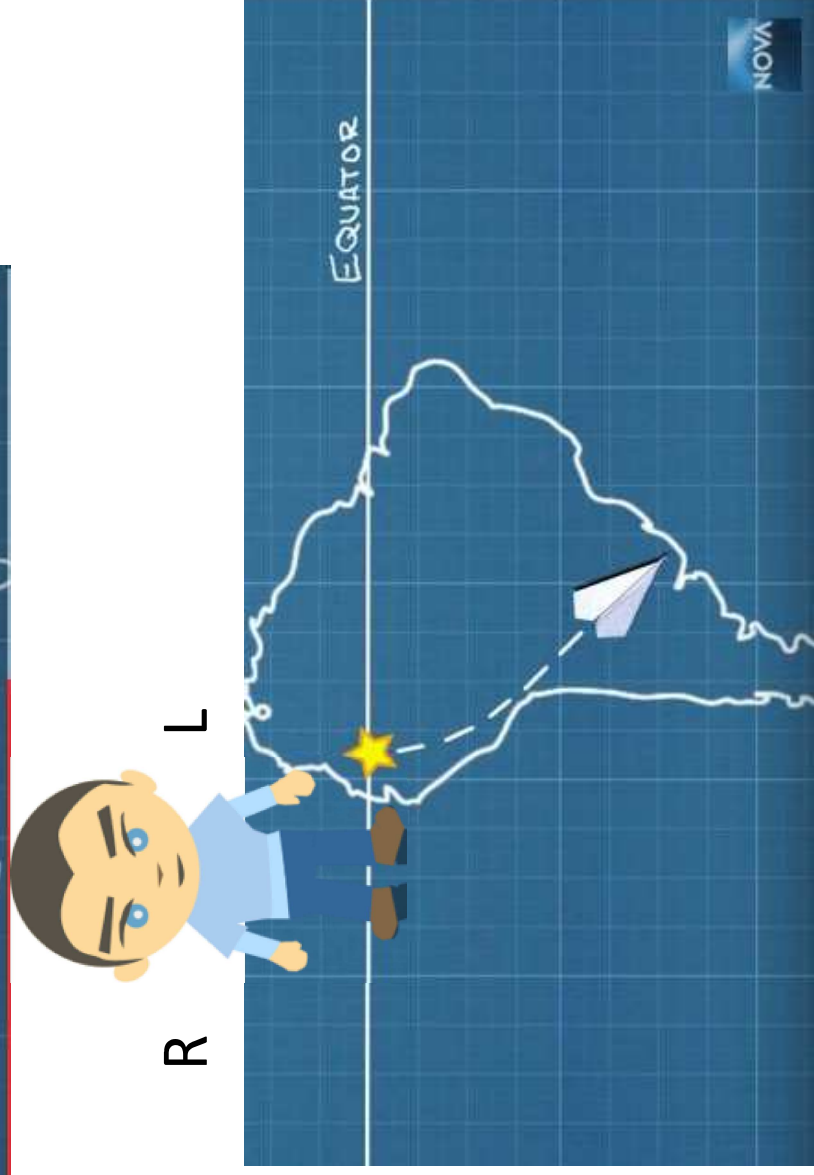
Coriolis Explained:

Northern Hemisphere vs. Southern Hemisphere

Objects are
deflected to your
right right



Objects are
deflected to your
left

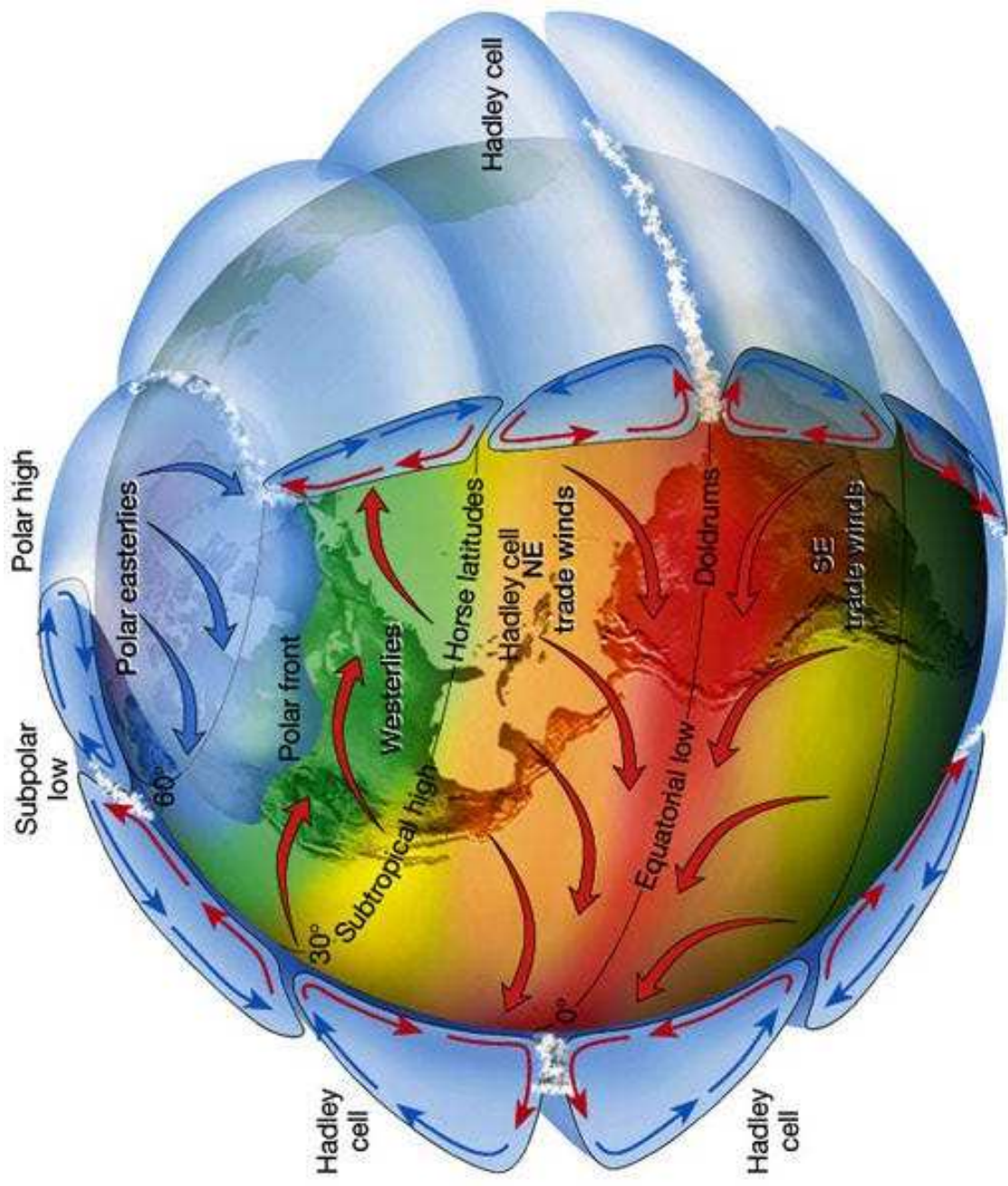


What controls the movement of global winds?

- Coriolis Effect- This effect describes how Earth's rotation impacts all moving objects- including wind.
Winds are deflected to the right of their path of motion in the N. Hemisphere (opposite in S. Hemisphere)
- Watch this video → [Coriolis Effect](#)
- The coriolis effect **only** changes wind direction, but not the speed

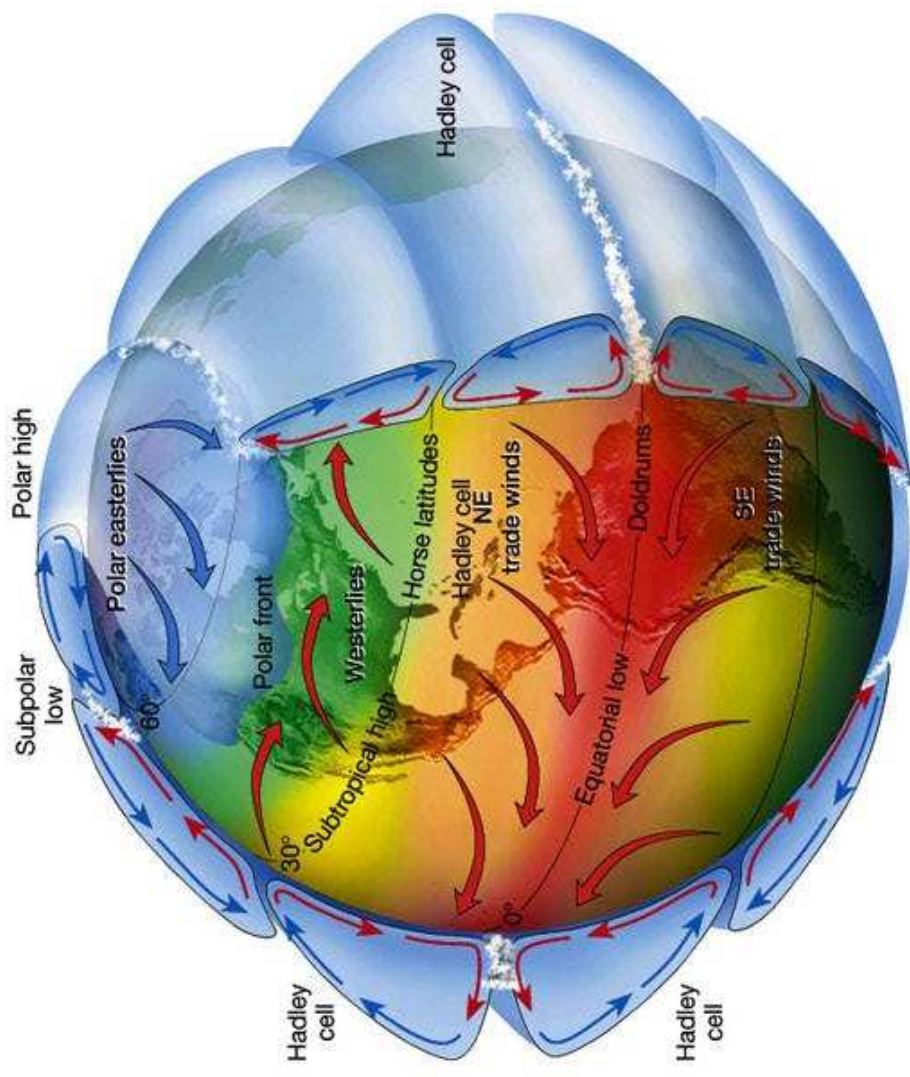
Global Winds

- Trade Winds
- Westerlies
- Polar Easterlies
- Polar Front



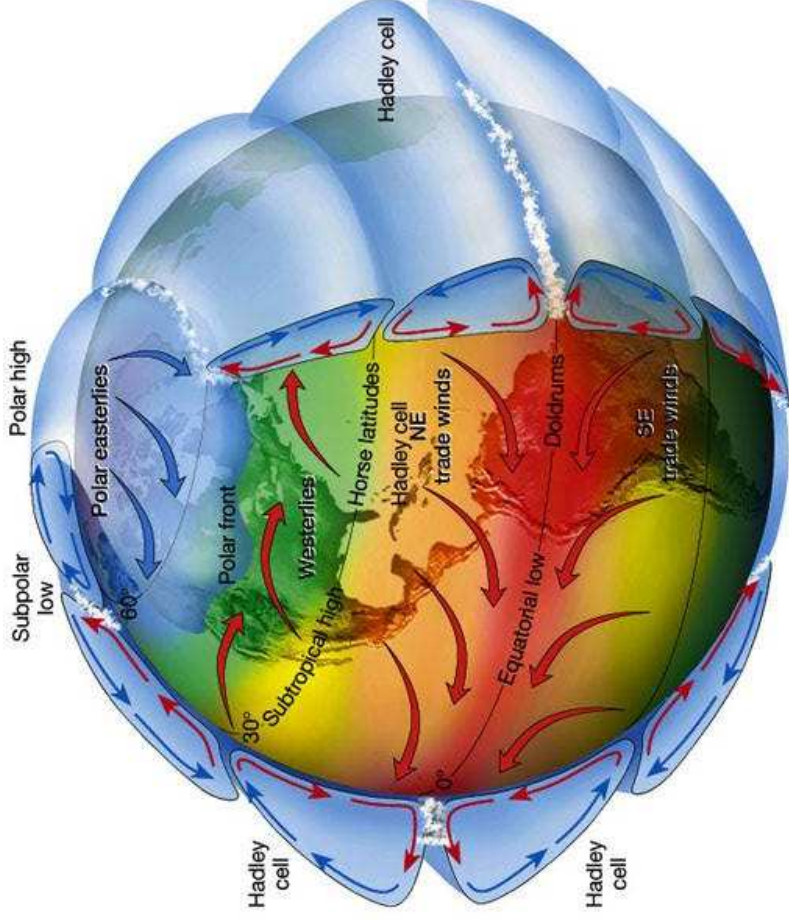
Tradewinds

- Trade Winds- 2 belts of winds that blow almost constantly from the east.
- They originate between subtropical highs and the equator-Warm air that rise towards the poles



West vs. East

- Westerlies -make up the dominant west to east motion of our atmosphere



- Easterlies- are winds that blow from the polar high towards the subpolar low