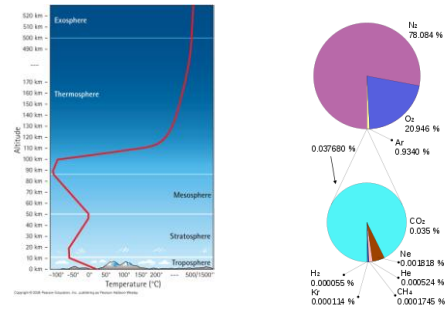


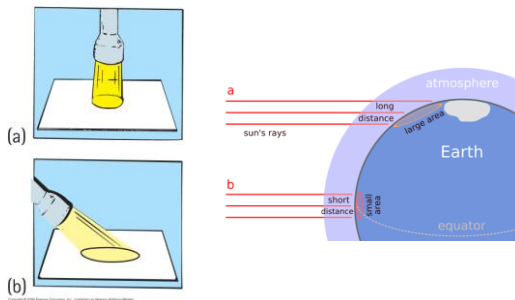
Oceans and atmosphere

GS 106

Earth's atmosphere

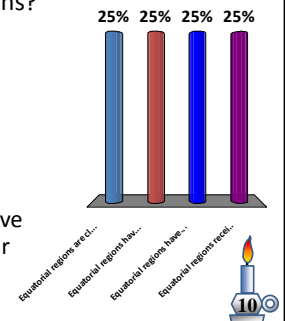


Solar energy: why the equator is warmer than the poles

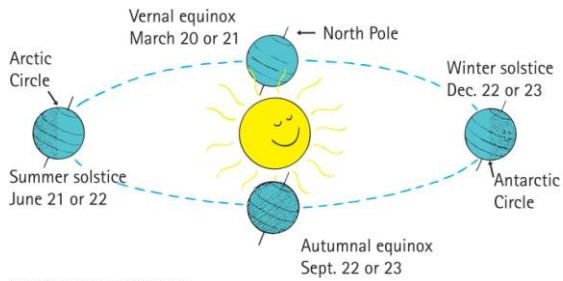


Which of the following best explains why equatorial regions are warmer than polar regions?

- Equatorial regions are closer to the Sun
- Equatorial regions have warmer ocean currents
- Equatorial regions have warmer winds
- Equatorial regions receive more concentrated solar radiation

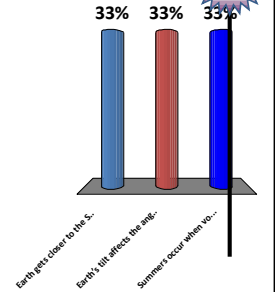


Seasons are determined by the tilt of Earth

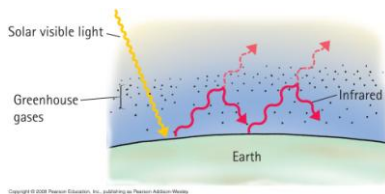


Which of the following best explains the cause of the seasons?

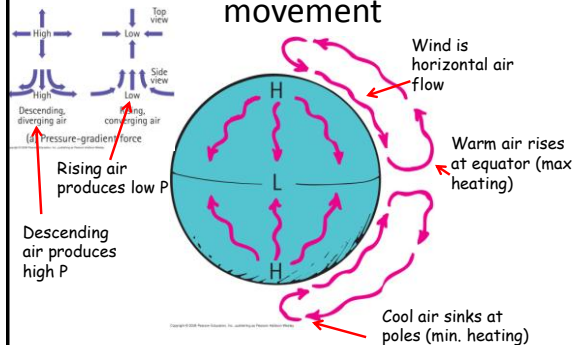
1. Earth gets closer to the Sun in the summer, further away in the winter
- ✓ 2. Earth's tilt affects the angle at which solar radiation strikes a given location
3. Summers occur when volcanoes are most active



Greenhouse Effect: how the atmosphere near Earth's surface is heated from below

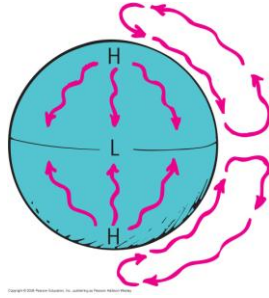


Affect of solar radiation on air movement

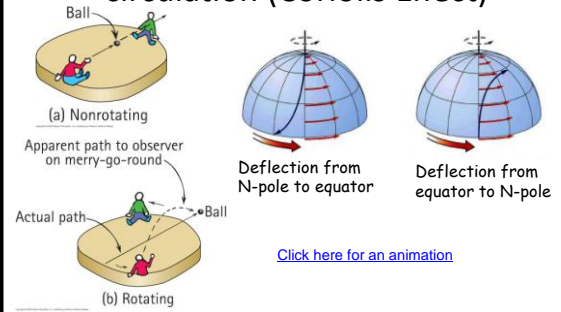


Winds flow from High P to Low P

Wind direction

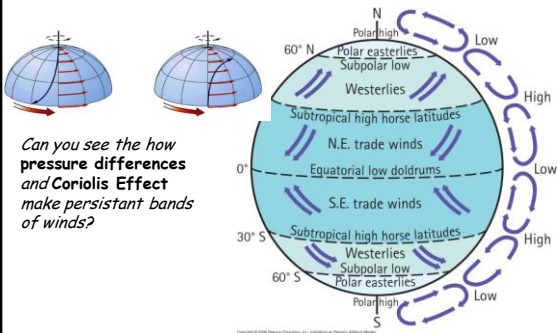


Earth's rotation deflects air circulation (Coriolis Effect)

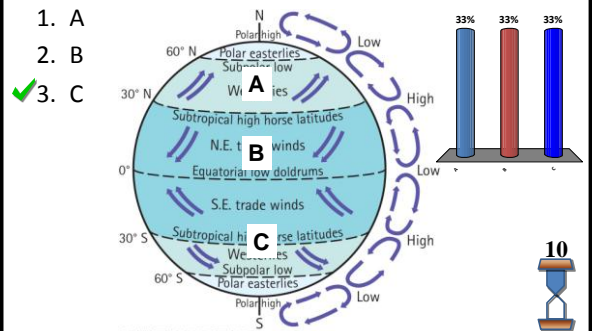


[Click here for an animation](#)

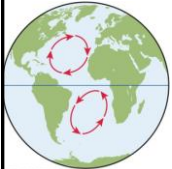
Global air circulation



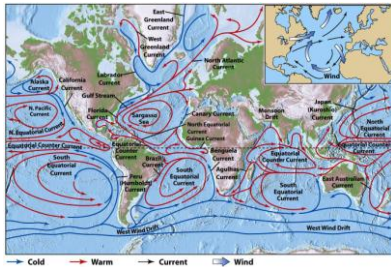
Which location generally has NO persistent winds




Winds create surface currents



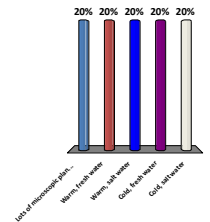
Notice how they are also deflected



Deep-water currents occur when water sinks,  the ocean floor, and flows parallel to it. What two factors most likely cause ocean waters to sink and form deep ocean currents?

1. Lots of microscopic plant and animal matter
2. Warm, fresh water
3. Warm, salt water
4. Cold, fresh water
- ✓ 5. Cold, salt water

10 Seconds Remaining



Deep-water currents result from density differences

