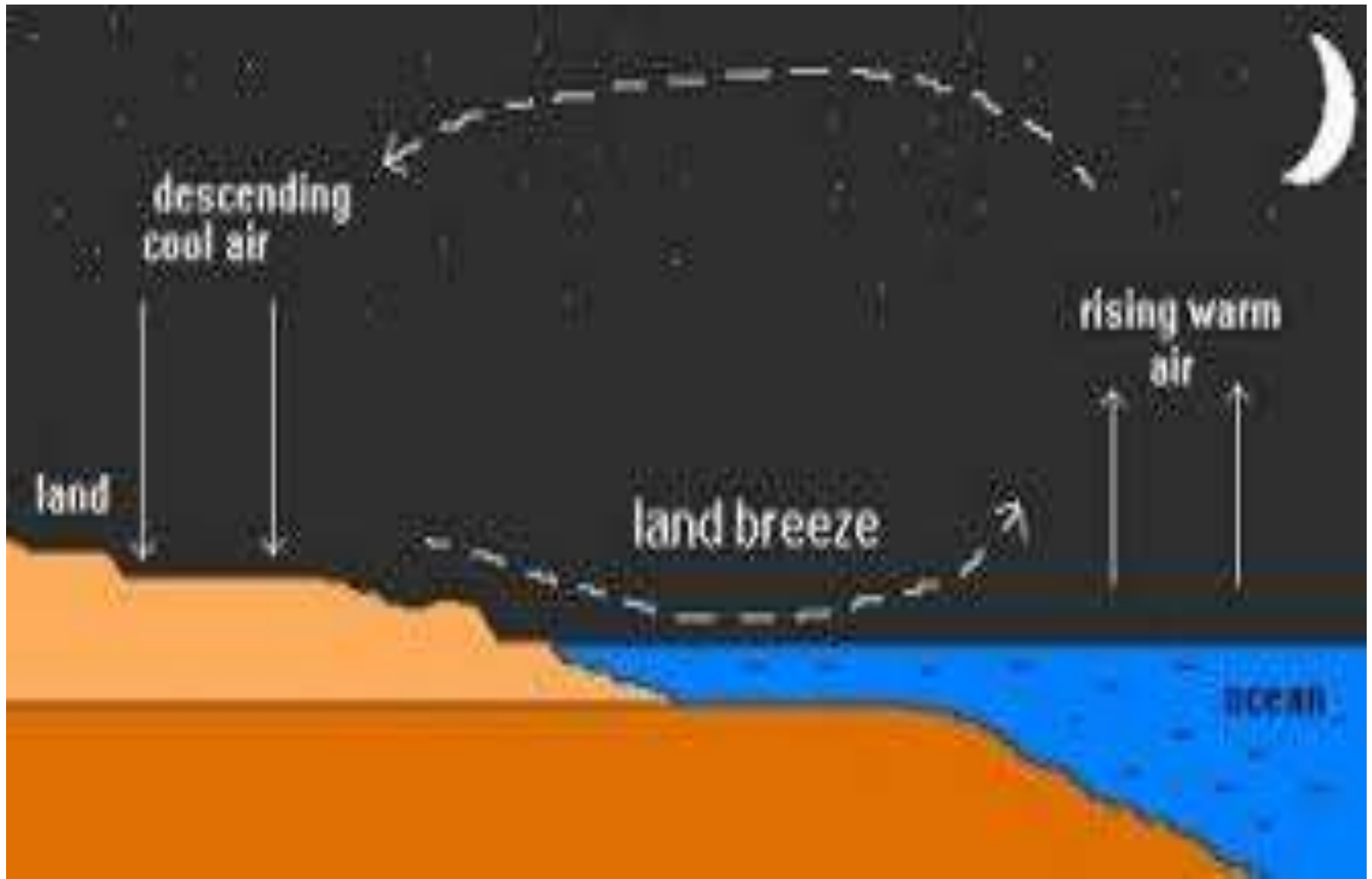


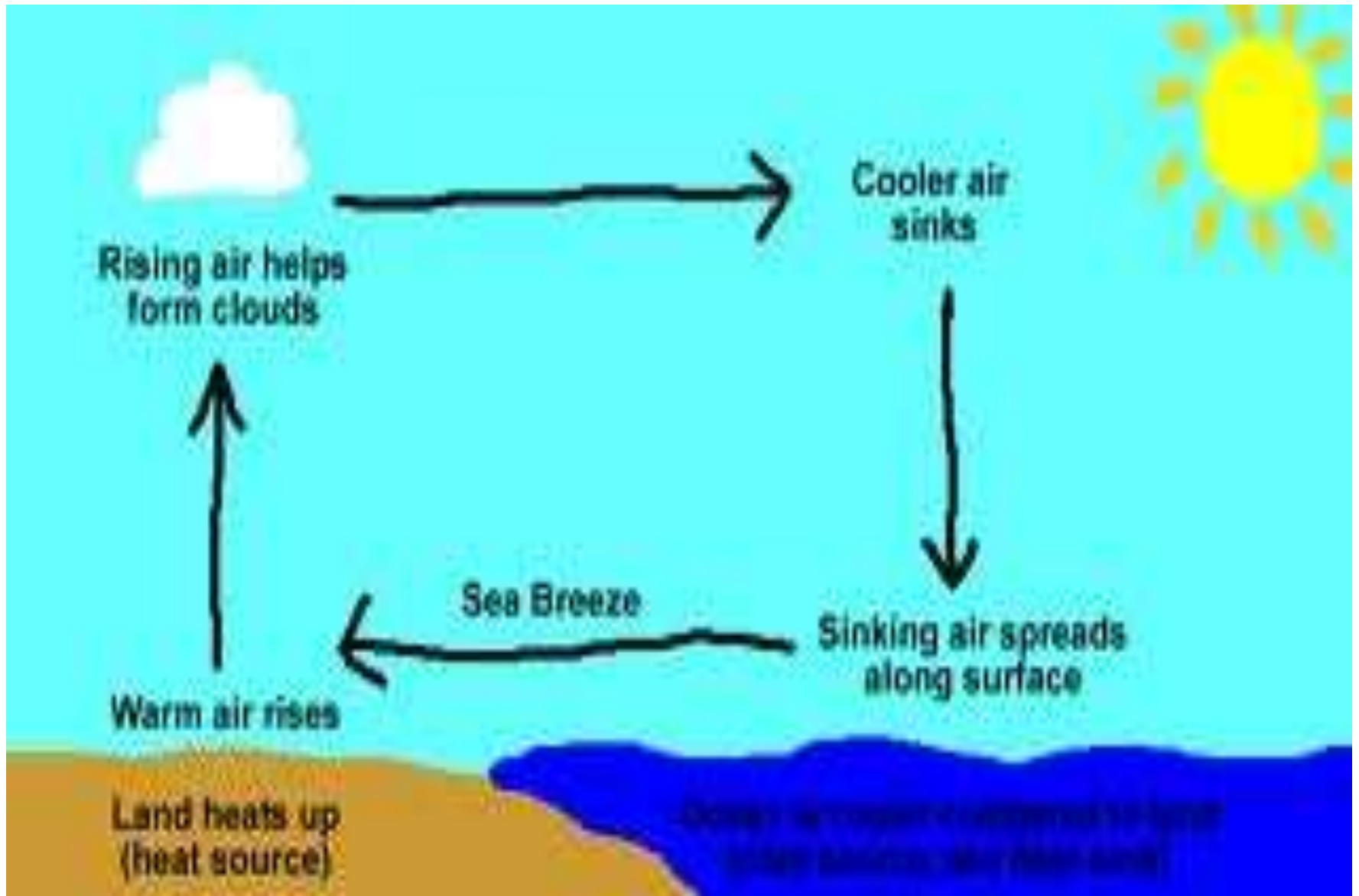
ATMOSPHERIC CIRCULATION

- ▶ Cold air replaces the rising warm air. Such horizontal movement of air is called wind.

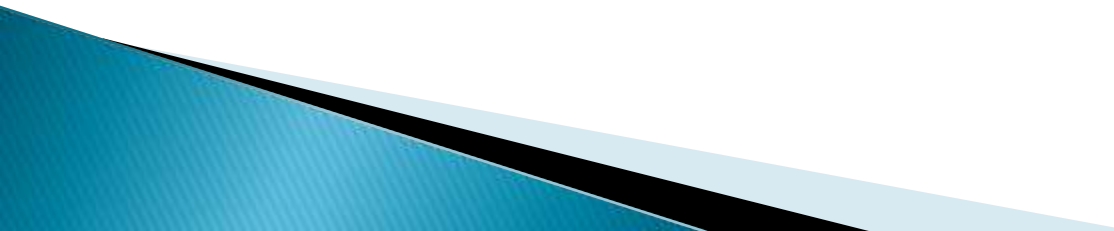
Causes of air movement


- ▶ The rising air caused by heating and the sinking air caused by cooling forms convection current
- ▶ During daytime, land heats faster than a body of water; thus, hot air above the land rises and the cold dense air from the body of water replaces it. This is called sea breeze.
- ▶ During nighttime, land heat rises faster than in a body of water; thus, hot air above the body of water rises and the cold dense air from the land replace it. This is called land breeze

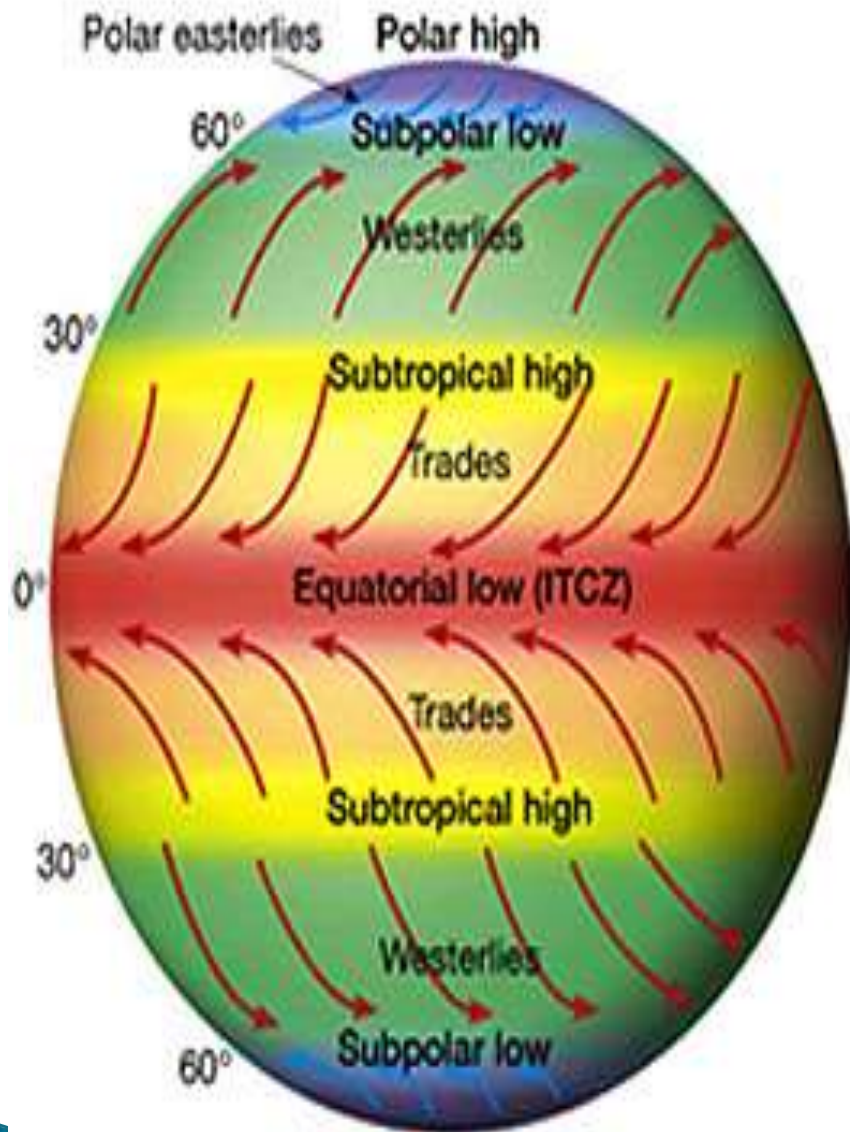




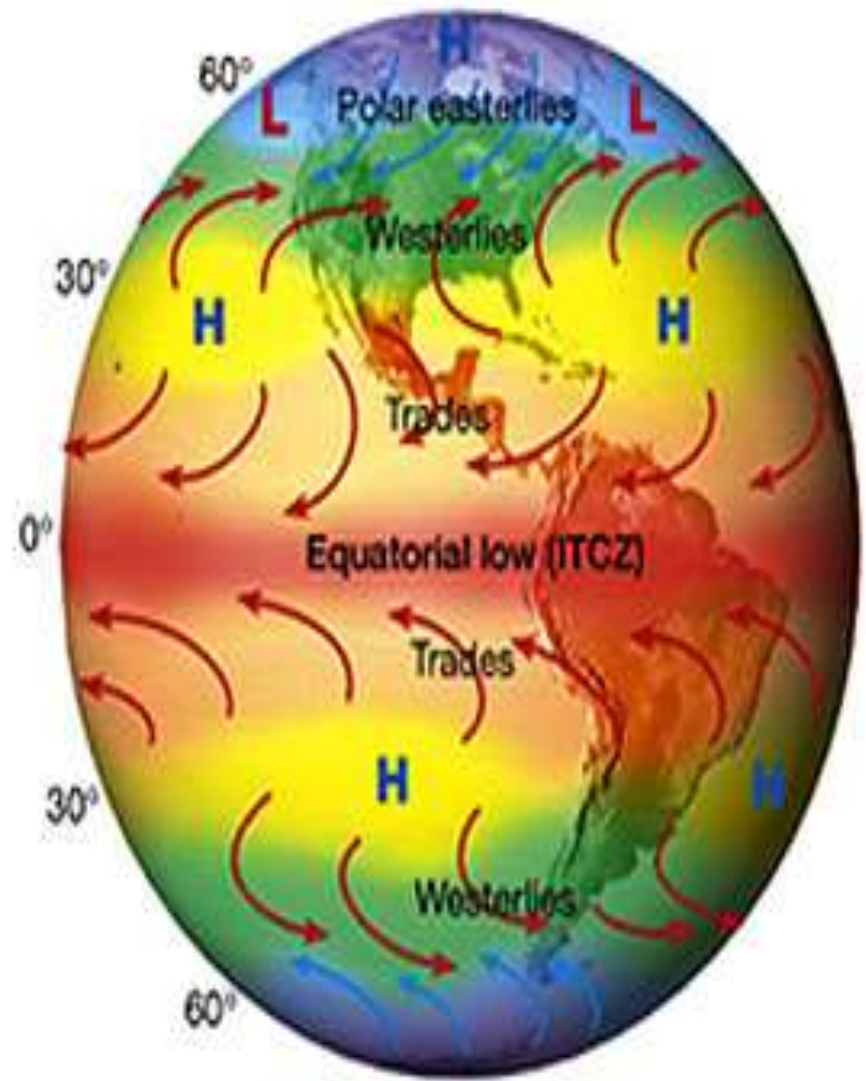
- ▶ Isobars are lines connecting places of equal air pressure.
- ▶ Pressure gradient is the spacing of the isobars which indicates the pressure changes occurring over a given distance.
- ▶ the Coriolis effect result because of the earth's rotation. All free moving objects, including the wind, are deflected to the right of their path of motion in the northern hemisphere and to the left in the southern hemisphere.

- ▶ The two general types of winds are : local winds and prevailing winds. Local winds are the winds we frequently encounter and these blow in any direction, prevailing winds are winds that blow from the same direction and most often travel long distances
 - ▶ Winds belts are general patterns of air circulation.
- 

- ▶ Prevailing westerlies are winds blowing from west while prevailing easterlies blow from the east.
 - ▶ The two factors affect the direction of prevailing winds:
 - ▶ 1.local winds– we frequently encounter and the blow in any direction.
 - ▶ Prevailing winds– that blow from the same direction and most often travel long distances.
- 




(a)



(b)

- ▶ Two factors affect the direction of prevailing winds
 - 1.unequal heating of the earth's surface
 - 2.earth's rotation.

 - ▶ Winds that blow during certain season toward either the continent or ocean due the differences in air pressure and temperature are called monsoons.
- 

- ▶ Northeast monsoon is called Amihan while southwest monsoon is called Habagat.
 - ▶ A pressure map uses isobars to connect point that have the same atmospheric pressure.
- 