

L-8 WINDS, STORMS AND CYCLONES

Class-VII

SCIENCE

MODULE- 3/4

WIND CURRENTS ARE GENERATED DUE TO UNEVEN HEATING ON THE EARTH

These situations are:

(a) Uneven heating between the equator and the poles

Regions close to the equator get maximum heat from the Sun.

The air in these regions gets warm. The warm air rises, and the cooler air from the regions in the 0–30 degrees latitude belt on either side of the equator moves in.

These winds blow from the north and the south towards the equator.

At the poles, the air is colder than that at latitudes about 60 degrees.

The warm air at these latitudes rises up and the cold wind from the polar regions rushes in, to take its place.

In this way, wind circulation is set up from the poles to the warmer latitudes,



The wind flow pattern because of uneven heating on the earth

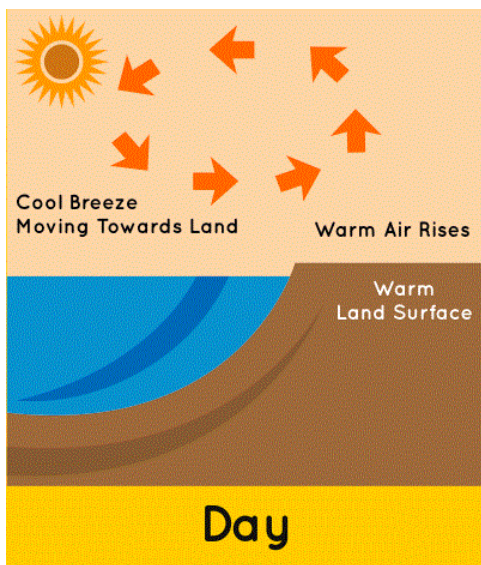
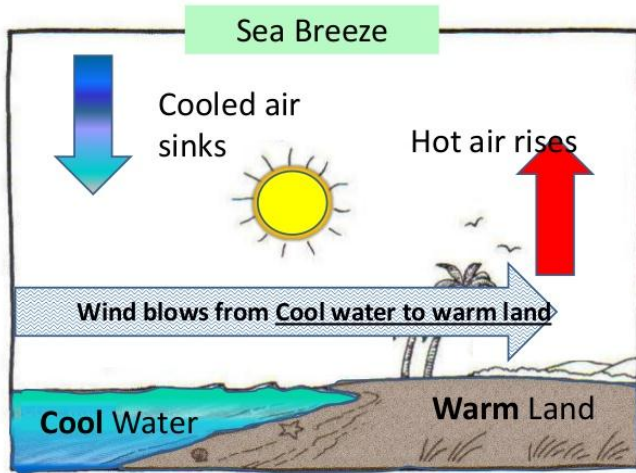
(b) Uneven heating of land and water

In summer, near the equator the land warms up faster and most of the time the temperature of the land is higher than that of water in the oceans.

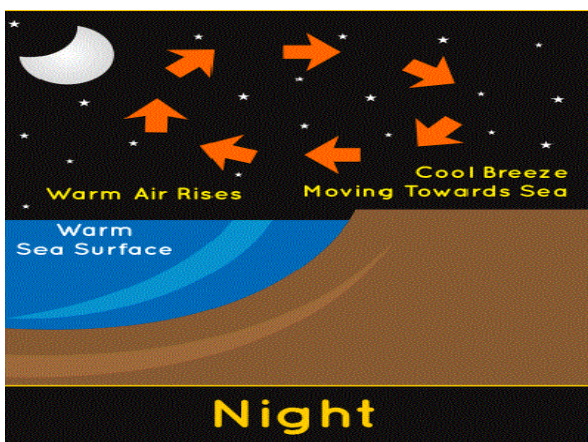
The air over the land gets heated and rises.

This causes the winds to flow from the oceans towards the land.

These are monsoon winds



In winter, the direction of the wind flow gets reversed; it flows from the land to the ocean



Thunderstorm

Thunderstorms develop in hot, humid tropical areas like India very frequently. The rising temperatures produce strong upward rising winds.

These winds carry water droplets upwards, where they freeze, and fall down again.

The swift movement of the falling water droplets along with the rising air create lightning and sound.

It is this event that we call a thunderstorm



PRECAUTIONS TO BE TAKEN DURING THUNDERSTORM

If a storm is accompanied by lightning, we must take the following precautions:

1. Do not take shelter under an isolated tree. If you are in a forest take shelter under a small tree. Do not lie on the ground.
2. Do not take shelter under an umbrella with a metallic end.
3. Do not sit near a window. Open garages, storage sheds, metal sheds are not safe places to take shelter.
4. A car or a bus is a safe place to take shelter.
5. If you are in water, get out and go inside a building.

