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STUDY NOTES

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CLASS- VII (All Section)

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SCIENCE

LESSON-07

CHAPTER: 8 Winds, Storms and Cyclones

Today's Topic: Air Currents

Air currents:

If we take the earth as a whole, the region around the equator receives more heat from the sun than the poles. This uneven heating of the equator and the poles give rise to air currents. Warm air from the equator rises up and as it moves up, it becomes cool. As it cools at higher altitudes, it moves toward the poles. At the same time, cold and dense air at the poles sinks and starts to flow toward the equator, replacing the warm air rising this region.

As a result of this, a pattern of air circulation from the poles to the equator is set up in which wind from both the polar regions blows towards the equator in the north-south direction as well as the south—north direction. However, due to the rotation of the earth, the winds do not blow in a strictly north—south direction but turn westward near the equator.

Similar air currents are produced due to the uneven heating of land and water. In coastal areas, the rapid heating of the land during the

day gives rise to sea breeze blowing from the sea, while the rapid cooling of the land after sunset gives rise to land breeze at night.

Monsoons in India are also caused by the uneven heating of land and sea surfaces but on a much larger scale. Summer heating of the Tibetan plateau and the Indian landmass makes moisture laden air from the Indian Ocean move towards India, bringing planting rain during the monsoon months.

The monsoon rains are very important for India, farmers depend on the rains to irrigate their land. Also, a great amount of electricity generated by water power provided by the monsoon rains.

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