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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 Air pressure

Rain, snow and thunderstorms are common weather phenomena. Sometimes the rain continues for a few days or a severe thunderstorm lasts for a few hours. But occasionally when a severe cyclonic storm hits the coast, it can bring torrential rain and deluge inundating large areas and causing an extensive loss of life and property.

In the central plains of the United States and in some parts of coastal India, violent whirlwinds known as tornadoes often strike, creating havoc within a matter of a few minutes. These weather phenomena are among the most violent seen in nature and cause extensive damage worldwide. However, they are nature's ways of maintaining the heat balance of our planet. Cyclones and hurricanes maintain equilibrium in the earth's troposphere and help maintain a relatively stable and warm temperature worldwide.

Air pressure:

The earth's atmosphere extends up to a height of about 1,000 km. The total amount of gases in a column that is 1,000 km tall would be large. These gases press down on the earth's surface at ground level, exerting a force that we call **atmospheric pressure** or air pressure.

Although we do not feel this pressure, it actually presses down very hard from all directions. Every square metre column of air at sea level weighs more than 10 tonnes-roughly equivalent to the force of an elephant balancing on a desk! Atmospheric pressure is measured with an instrument called a **barometer**.

Atmospheric pressure: The pressure exerted by the atmosphere.

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