



VIDYA BHAWAN, BALIKA VIDYAPITH
SHAKTI UTTHAN ASHRAM, LAKHISARAI - 811311

STUDY NOTES

Teacher's Name: Anjani Kaushik

CLASS- VII (All Section)

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SCIENCE

LESSON-07

CHAPTER: 8 Winds, Storms and Cyclones

Today's Topic: Air expands on heating

Air expands on heating:

Atmospheric pressure also depends on temperature. Air expands on heating and become lighter. Being less dense, warm air exerts less pressure than cold air, which is dense and hence heavier. It is because air expands and becomes lighter on heating, smoke rises and hot air balloons rise.

When warm air rises, it causes a region of low pressure below it. With low pressure, the weather is often wet and cloudy because as warm air rises, it cools and often condenses into clouds and causes rain. We often hear terms, such as low pressure and **deep depression** in weather bulletins, which is a forecast for heavy rainfall and bad weather.

When air moves, it is called wind. Air always moves from a higher pressure to a lower pressure area. The instrument used to measure wind speed is known as an anemometer.

Air moves from cold areas to hot areas and dry air moves to places where there is moist air. If the pressure difference between two regions is considerably high, the wind blows with a greater speed.

When warm air rises, the air pressure at that place falls and cold air from the surrounding areas rushes in to fill its place. This sets up convection currents in air that play a major role in causing storms, rain and cyclones.

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