• **Air** is a mixture of gases and it has weight. Anything that has weight exerts pressure.
  a. Vacuum-packed packets shrink because air is removed and outside pressure acts on them.
  b. Example: When you blow air into a balloon, it expands due to air pressure.

• **Wind and Its Movement**

Wind is moving air. It moves from high-pressure areas to low-pressure areas.
The movement of air is influenced by:

  a. Temperature differences
  b. Pressure differences
  c. Earth's rotation

• **How Winds are Formed**
  a. Sun heats the Earth unevenly.
  b. Warm air rises, creating low pressure.
  c. Cool air moves in to replace it, creating wind.
  d. Example: Sea breeze and land breeze.

• **Effects of Wind Pressure**

- Strong wind can move heavy objects like trees and rooftops.
- Wind pressure increases with speed.

• **Storms** is a weather event with strong winds, sometimes accompanied by rain, thunder and lightning.

• **Cyclone:** A cyclone is a large, rotating storm system that forms over warm ocean waters, characterised by pressure Centre (the eye). Cyclones are stronger and larger than typical storms,

• **Formation of Cyclones**
  a. Warm, moist air rises from the sea.
  b. Creates a low-pressure area.
  c. More air rushes in and starts rotating due to Earth's rotation.
  d. Condensation releases heat, fueling the cyclone.

• **Thunderstorms is a weather event characterized by thunder, lightning, and often heavy rain, strong winds, or even hail. It forms when warm, moist air rises rapidly into the atmosphere and cools, creating towering cumulonimbus clouds.**

• **Safety Tips during Storms and Cyclones**
  a. Stay indoors
  b. Don’t touch electric wires or poles
  c. Store food and water
  d. Listen to weather updates
  e. Help neighbors, especially elderly and children

• **Real-Life Examples**
  a. 1999 Odisha Cyclone: Massive destruction due to high wind speed and rain.
  b. Windmills use air pressure to generate electricity.
  c. Ships are designed with special shapes to handle wind and water pressure.