

Air Pressure

Chapter 4: Air Pressure · Topic 1

Key Concept

Air pressure is caused by the weight of the atmosphere pressing down on Earth's surface, measured using a barometer.

Air pressure decreases with altitude, which is why mountain climbers experience lower pressure and thinner air at high elevations.

High pressure areas are usually associated with clear, calm weather, while low pressure areas are often linked to clouds and storms.

Understanding air pressure differences helps meteorologists predict weather changes and explains why wind moves in certain directions.

Quick Revision Notes

- Air pressure: weight of atmosphere pressing down.
- Measured using a barometer.
- Pressure decreases with altitude.
- Mountains have lower pressure, thinner air.
- High pressure: clear, calm weather.
- Low pressure: clouds, storms.
- Pressure differences explain wind direction.
- Meteorologists use this to predict weather.

Practice Questions

- 1 Discuss how a barometer measures air pressure.
- 2 Discuss why mountain air feels thinner.
- 3 Research the connection between pressure and weather.
- 4 Discuss high pressure vs low pressure weather.
- 5 Draw a diagram showing pressure at different altitudes.
- 6 Explain air pressure in your own words.