

Composition of the Atmosphere

Chapter 3: Composition of the Atmosphere · Topic 1

Key Concept

Nitrogen makes up about 78% of the atmosphere, while oxygen makes up about 21%, with the remaining 1% including gases like argon and carbon dioxide.

Water vapour, though present in small amounts, plays a crucial role in weather processes like cloud formation and precipitation.

Carbon dioxide, while a small percentage, is important for photosynthesis in plants and for regulating Earth's temperature.

The composition of the atmosphere can vary slightly with altitude, location, and human activities like pollution.

Quick Revision Notes

- Nitrogen is about 78% of the atmosphere.
- Oxygen is about 21%.
- The remaining 1% includes argon and carbon dioxide.
- Water vapour plays a role in weather processes.
- It's involved in cloud formation and precipitation.
- Carbon dioxide supports photosynthesis.
- It also regulates Earth's temperature.
- Composition can vary with altitude and pollution.

Practice Questions

- 1 List the main gases in the atmosphere with their percentages.
- 2 Discuss the role of water vapour in weather.
- 3 Explain why carbon dioxide is important despite being a small percentage.
- 4 Research how pollution affects atmospheric composition.
- 5 Create a pie chart showing atmospheric gas composition.
- 6 Discuss why nitrogen makes up most of the atmosphere.