

The Atmosphere - Composition and Structure

Chapter 9: The Atmosphere - Composition and Structure · Topic 1

Key Concept

The atmosphere is mainly nitrogen (78%) and oxygen (21%), with smaller amounts of argon, carbon dioxide, and water vapour.

The troposphere, closest to Earth, is where weather occurs and where most atmospheric water vapour and clouds are found.

The stratosphere, above the troposphere, contains the ozone layer, which absorbs harmful ultraviolet radiation from the Sun.

Higher layers, like the mesosphere and thermosphere, have decreasing air density and play roles in meteor burning and auroras.

Quick Revision Notes

- Atmosphere is mainly nitrogen (78%) and oxygen (21%).
- Smaller amounts of argon, CO₂, water vapour exist.
- The troposphere is closest to Earth.
- Weather occurs in the troposphere.
- The stratosphere contains the ozone layer.
- Ozone absorbs harmful UV radiation.
- Higher layers include mesosphere, thermosphere.
- These have decreasing air density.

Practice Questions

- 1 List the main gases in the atmosphere.
- 2 Discuss the role of the troposphere.
- 3 Research the ozone layer's importance.
- 4 Explain why the stratosphere protects us.
- 5 Research the mesosphere's role in meteor burning.
- 6 Create a diagram of the atmosphere's layers.