

Structure of the atmosphere

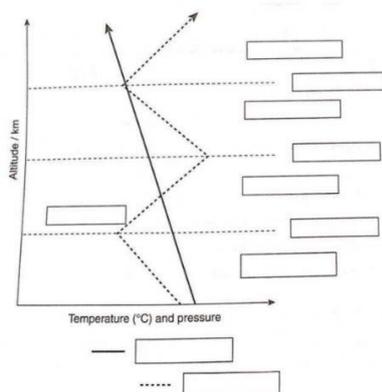
1. Complete the following paragraph with words supplied in the list below. Beware as some of the words in the list are not correct. Please, when you fill in the gaps, spell the words exactly as they appear in the list or else they will be counted as a mistake.

ozone 78.09% oxygen gases Nitrogen
 thermosphere argon gravity
 carbon dioxide 0.03% stratosphere

The Earth's atmosphere is a mixture of _____, with some liquids and solids, held to Earth by _____. _____ is the most abundant gas (_____). This is followed by _____. A gas which makes less than 0.93% is _____. Another gas, which is _____, makes up _____. Plants make food from this gas via photosynthesis. _____ is a gas found in the _____ that absorbs potentially harmful ultraviolet radiation.

2. The diagram below shows the structure of the atmosphere. Fill in the blank boxes by dragging and dropping the correct labels from the list below.

mesosphere thermosphere stratopause temperature
 temperature inversion pressure tropopause stratosphere
 mesopause troposphere



3. Explain how temperature changes with altitude through the layers of the atmosphere. Match the two columns.

Troposphere	Temperature increases with height as ozone absorbs incoming ultraviolet radiation.
Stratosphere	Temperature increases as atomic oxygen absorbs ultraviolet radiation.
Mesosphere	Temperature decreases with height as there is no water vapour, dust or ozone to absorb the incoming short-wave radiation.
Thermosphere	Temperature decreases with height as warming effect of the Earth's surface through conduction and convection diminishes with height.

4. Decide which layer of the atmosphere the following sentences refer to.

- Airplanes fly in this layer to avoid turbulence
- It is the coldest layer of the atmosphere.
- It is the warmest layer of the atmosphere.
- It measures approximately 10km to 15km high
- Phenomena like the Northern and Southern lights occur in this layer.
- Satellites orbit the Earth in this layer.
- Shooting stars occur in this layer.
- Temperature can drop to -90°C .
- Temperatures can rise up to 2000°C .
- The international space station orbits the Earth within this layer.
- The ozone that protects us from harmful UV rays is in this layer.
- This is the closest layer to the Earth.
- This layer extends to an altitude of 85 - 130km above sea level.
- This layer extends to an altitude of 15 - 50 km above sea level.
- This layer extends to an altitude of 50 - 85 km above sea level.
- Weather and climate phenomena like rain, wind or snow occur in this layer.