

Layers of the Atmosphere
Chapter 15
Section 3

Atmosphere

•Consists of four main layers

1. Troposphere
- 2.
3. Mesosphere
- 4.

Troposphere

- Closest to Earth's surface and is the layer where our weather occurs.
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- It is from less than 9 km at the North and South poles to 16 km thick
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- Temperatures decrease with altitude in this layer. Near the top of the layer it is - 60 C.

Stratosphere

- Second layer of the atmosphere, it extends to 50 km above Earth's surface.
- Contains the ozone layer –

- Lower stratosphere is cold while the upper part is warmer due to the ozone layer –

Mesosphere

- Mesosphere starts at 50 km and extends 80 km above the Earth's surface.
- The temperature –

- This layer protects Earth's surface –

Thermosphere

- Extends from 80 km above Earth's surface into space.
- The air –

- Ionosphere-

- Energy from the sun causes gas molecules to become electrically charged in the ionosphere.

Thermosphere

- In the ionosphere –

- Auroras such as the Northern Lights are caused by particles from the sun hitting the atoms in the Ionosphere causing them to glow.

- Exosphere is the outer layer -