

What's in the Atmosphere?

Earth's atmosphere is a jacket of gases that surround our planet. It keeps us warm, gives us oxygen to breathe, protects us from the sun's radiation, and helps to form weather patterns. It makes life on Earth possible.

The atmosphere has six layers, which extend from the ground to outer space.

The **exosphere** is the very edge of our atmosphere. It's about 10,000 km (6,200 miles) thick, almost as wide as Earth itself. The exosphere has some gases, but they are very spread out, and it's very cold.

The **thermosphere** is 513 km (319 miles) thick. It can be very hot in this layer. The thermosphere is home to the International Space Station, and many satellites.

The **mesosphere** is 35 km (22 miles) thick. The air is very thin, so you wouldn't be able to breathe here. Most meteors burn up in the mesosphere.

The **stratosphere** is 35 km (22 miles) thick. Weather balloons fly in this layer. It is home to the ozone layer, which helps protect us from the sun's ultraviolet radiation.

The **troposphere** is the innermost layer, 8 to 14 km (5 to 9 miles) thick. It is where weather happens. This layer has the air we breathe, clouds in the sky, and airplanes flying.

The **ionosphere** overlaps with other layers. It grows and shrinks depending on the energy it absorbs from the sun. In this layer, charged particles are affected by the magnetic fields of Earth and the sun. It is where the aurora happens.

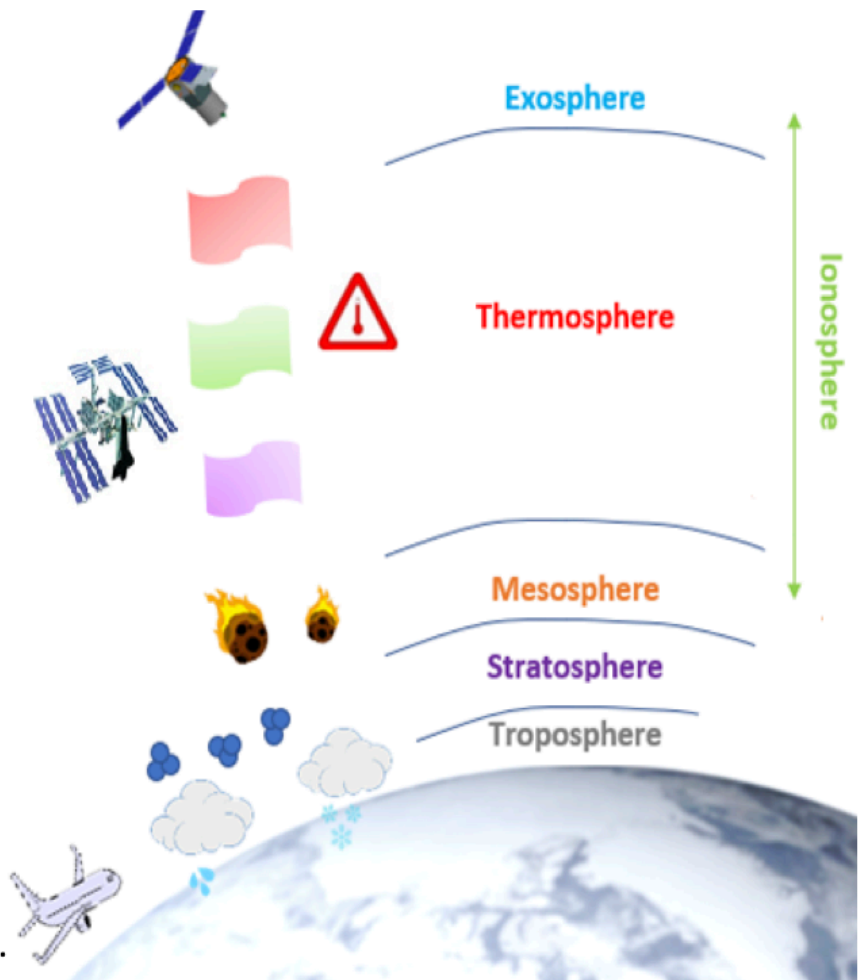


Diagram by Elisabeth Padilla.

Discover more about the atmosphere at
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