

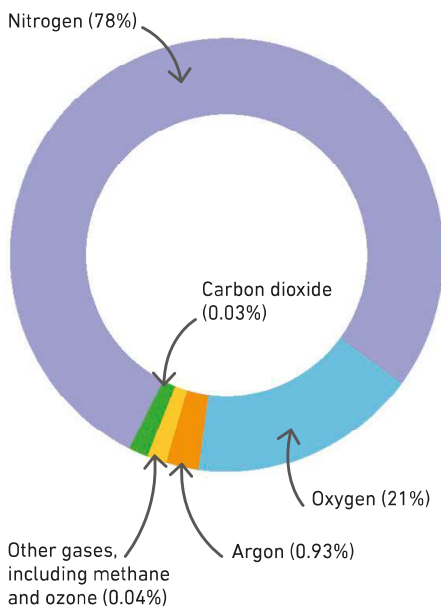
# The atmosphere

THE EARTH IS SURROUNDED BY A BLANKET OF GASES 430 MILES (700 KM) DEEP, CALLED THE ATMOSPHERE.

The atmosphere provides air and water, making life on Earth possible. It regulates the temperature and protects living things from the sun's harmful rays.

## Composition of the atmosphere

Our atmosphere, or air, is a mixture of different gases and tiny particles. Two gases, nitrogen (78 percent) and oxygen (21 percent), make up 99 percent of the atmosphere. The remaining 1 percent includes carbon dioxide and water vapor, plus traces of the gases argon, helium, methane, ozone, and neon. Oxygen is vital for supporting life on Earth.



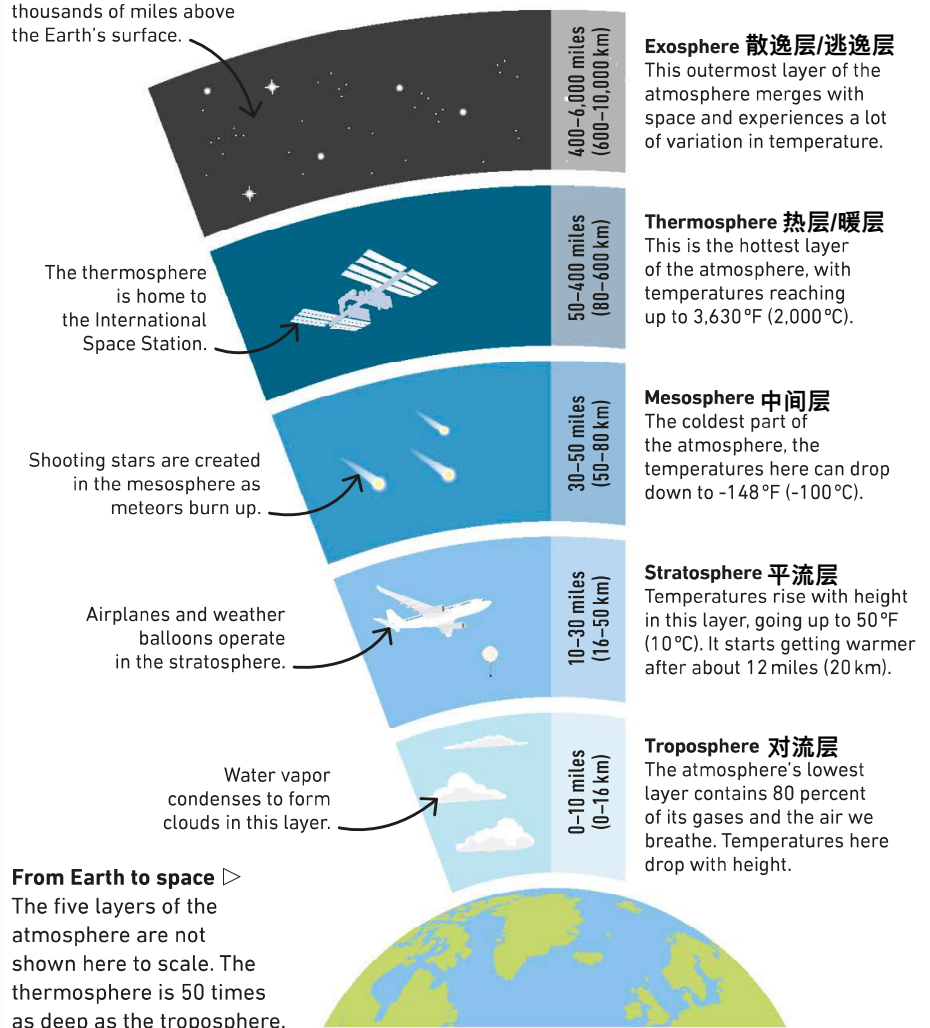
### △ Component gases

The average composition of the atmosphere stays stable, but slight variations in trace gases such as carbon dioxide, methane, and ozone can have a significant impact on the Earth's climate.

## Layers of the atmosphere 大气的垂直分层

The Earth's atmosphere has five layers, each of a different thickness, from the troposphere at the bottom to the exosphere at the top. The thermosphere includes a thin layer called the ionosphere, packed with ions (electrically charged particles), while the "ozone layer" in the stratosphere is made up of a thin concentration of ozone gas.

This outer layer extends to thousands of miles above the Earth's surface.



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