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## How Does the Ozone Layer in the Stratosphere Protect Life on Earth?

High above Earth's surface, in a part of the atmosphere called the stratosphere, there is a thin shield called the ozone layer. Although it's invisible to the eye and only a few miles thick, this layer plays a huge role in keeping life on Earth safe.

The ozone layer is made up of a special kind of oxygen called ozone. Each ozone molecule has three oxygen atoms instead of the usual two. These ozone molecules are excellent at blocking something called ultraviolet (UV) radiation. UV rays come from the sun and can be very harmful to living things.

Too much UV radiation can burn your skin, cause eye problems, and even lead to skin cancer. It can also hurt plants and animals. Luckily, the ozone layer stops most of these harmful rays from ever reaching us. Without it, Earth would be a dangerous place to live.

The stratosphere is the second layer of the atmosphere, just above the troposphere where all our weather happens. The ozone layer sits in the lower part of the stratosphere, about 10 to 30 miles above the ground. It acts like a giant invisible umbrella, shielding people, animals, and plants from too much sun.

However, the ozone layer hasn't always been safe. In the past, certain chemicals called CFCs (chlorofluorocarbons) were used in spray cans and refrigerators. These chemicals rose into the stratosphere and damaged the ozone. This caused a "hole" in the ozone layer over parts of the Earth, especially Antarctica.

Once scientists realized this danger, countries around the world worked together to stop using CFCs. Since then, the ozone layer has started to heal.

The ozone layer may be out of sight, but it's always at work. Thanks to this thin layer high above, we can enjoy sunshine without getting too much harmful UV light. It's a great example of how Earth's atmosphere helps protect everything living on our planet.