

1.3 Gases in the atmosphere absorb radiation.

The ozone layer protects life from harmful _____. An ozone molecule is made of _____ oxygen atoms. The ozone layer protects life on Earth by absorbing harmful _____ radiation from the Sun. Too much ultraviolet radiation can cause _____, skin cancer, and damaged _____. Ultraviolet radiation can harm _____ and materials such as plastic or _____. Ozone absorbs ultraviolet radiation but lets other types of radiation, such as visible light, pass through.

The greenhouse effect keeps Earth warm.

Certain gases in the atmosphere slow the movement of energy (heat) away from Earth's surface. The gases absorb and emit infrared radiation, which keeps energy in Earth's surface. The gases absorb and emit infrared radiation, which keeps energy in Earth's system for a while. This process was named the _____ because it reminded scientists of the way glass traps warmth inside a greenhouse. Carbon dioxide, methane, water vapor, nitrous oxide, and other gases that absorb and give off infrared radiation are known as _____.

1.4 Human activities affect the atmosphere.

Smoke and other harmful materials that are added to the air are called air _____. Outdoors, _____ can spread air pollution from place to place the way a fan does within your home.

Types of pollution:

- **Particulates**

are tiny particles or droplets that are mixed in with air. _____ contains particulates. The wind can pick up other particulates such as dust and dirt, _____, and tiny bits of salt from the oceans.

- **Fossil Fuels**

In cities and suburbs, most air pollution comes from the burning of fossil fuels such as _____, _____, and _____. Fossil fuels are fuels formed from the remains of _____ and plants. The word _____ describes a combination of smoke and fog. There can be enough smog to make a brownish haze in areas with high pollution. Human activities are _____ greenhouse gases. Most greenhouse gases occur _____. They have helped keep temperatures within a range suitable for the plants and animals that live on Earth. Human activities are also producing greenhouse gases faster than natural processes can _____ these gases from the atmosphere.

Global Warming

Currently the levels of _____ in the air are the highest in the last 800,000 years.

- On average, Earth will become _____. Some regions may welcome warmer temperatures, but others may not.
- Warmer conditions will probably lead to more evaporation and _____ overall, but individual regions will vary, some becoming wetter and others dryer.
- A stronger greenhouse effect will warm the _____ and partially melt _____ and other ice, increasing sea level. Ocean

water also will _____ if it warms, contributing further to _____.

- Meanwhile, some crops and other plants may respond favorably to increased atmospheric CO_2 , growing more vigorously and using water more efficiently. At the same time, higher temperatures and shifting climate patterns may change the areas where _____ grow best and affect the makeup of natural plant communities.