

Atmosphere: A layer of gases surrounding a planet.

The earth's atmosphere contains: 78.08% nitrogen, 20.95% oxygen, 0.93% argon, 0.038% carbon dioxide, traces of hydrogen, helium & other gases, and 1% water vapour.

Aerosol: Using a gas under pressure to produce a fine spray of liquid. An example is an aerosol can of spray paint.

Carbon Dioxide (CO₂): A gas made up of carbon and oxygen. It has no colour and no smell. We breathe it out of our lungs. It is also man-made by the burning of fossil fuels and absorbed naturally by trees and plants. It is a greenhouse gas.

Climate: Climate is what we expect to happen season to season. Long-term weather patterns of a region or place.

Climate Change: The change in long-term weather patterns. Climate change can be natural, or caused by changes people have made to the land or the atmosphere.

Conservation: The act of protecting nature – water, plants and wildlife.

Coral Reef: Coral reefs are colonies of tiny animals found in marine waters that contain few nutrients; they are very sensitive to water temperature.

Deforestation: The mass removal of trees from an area.

Desertification: Long term damage to dry lands caused by drought and by human activities such as over cultivation, deforestation and poor irrigation practices that turn the land to a desert.

Drought: A long period of dry weather with little or no rain.

Energy audit: An assessment of how much energy your home consumes combined with suggestions on how you can make your home more energy efficient.

Erosion: The process of land being washed away or worn away slowly by wind or water.

Floods: A great overflow of water onto a place that is usually dry.

Fossil fuels: Fuels (coal, oil, natural gas) that result from the compression of ancient plant and animal life formed over millions of years.

Glacier: A large mass of ice and snow that moves very slowly across the land, forming permanent changes to the landscape. The Oak Ridges Moraine is a geological formation created by a glacier.

Global Warming: A continual rise in the average temperature of the earth. This occurs in the air and water at the earth's surface.

Greenhouse: It is a heated building with a glass roof and sides that is used for growing plants.

Greenhouse Gases (GHG): Gases which allow the sun's rays to pass through and warm the earth but prevent this warmth from escaping into the atmosphere. GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), halon gas....

Greenhouse Effect (GHE): The effect produced on the earth when heat from the sun is trapped by the atmosphere. The GHGs allow incoming solar radiation to pass through the earth's atmosphere, but prevent most of the outgoing infrared radiation from the surface and lower atmosphere from escaping into outer space.

Halon Gas: A liquefied, compressed gas that stops the spread of fire by chemically disrupting the fire. It is a greenhouse gas.

Invasive Species: A non-native species that is so reproductively successful and aggressive that it can dominate an area, often to the point of becoming a monoculture. It interferes with the natural functioning and diversity of the ecosystem where it becomes established.

Infrared rays: Rays of light that are just beyond red in the colour spectrum. Infrared light rays cannot be seen but they produce heat that can be felt and measured.

Meteorology: The science that studies weather, climate and the earth's atmosphere.

Methane (CH₄): This gas is produced when vegetation is burned, digested or rotted without oxygen. It is a greenhouse gas.

Nitrous Oxide (N₂O): A colorless, non-flammable gas with a sweetish odor, commonly known as "laughing gas" and sometimes used as an anesthetic. Oceans and rainforests naturally produce nitrous oxide. Nitrous oxide is produced by a range of human activities as well, including the use of fertilizers in agriculture, use of catalytic converters in cars and the burning of organic matter. Nitrous oxide is a greenhouse gas.

Ozone layer (O₃): A layer of specialized oxygen in the earth's atmosphere. The ozone layer protects humans, animals and plants from harmful ultraviolet light rays from the sun.

Radiation: The energy or rays sent out when certain changes happen in the atoms or molecules of a substance. Light, heat, radio waves and x-rays are forms of radiation.

Ultraviolet Light: Scientists classify UV light into three spectrums. UV-A, known as long-wave UV or black light, tans skin and poses little threat to humans. The ozone mainly absorbs the second group known as UV-B, but what little filters through can age skin and cause cancer or cataracts. Shortwave UV, known as UV-C, causes some redness in skin and eye irritation but doesn't lead to cancer or cataracts; instead, this form disinfects the air.

Weather: What we experience day-to-day, and includes: temperature, precipitation, cloud cover.... What is happening outdoors now!