

## Climate Change Vocabulary

1. **Ecosystem** – a natural community of plants, animals, and other organisms and the physical environment in which they live and interact.
2. **Habitat** – the place in the environment where a plant or animal lives.
3. **Atmosphere** – a mixture of gases, such as nitrogen, oxygen, and carbon dioxide, that surrounds the Earth.
4. **Weather** – the current conditions of the atmosphere at a particular place and time. Some characteristics of weather are temperature, humidity, precipitation, cloudiness, wind, and atmospheric pressure. Weather conditions are temporary and change frequently.
5. **Precipitation** – any moisture that falls to Earth, such as rain, snow, hail, sleet, or mist.
6. **Climate** – the pattern of weather over a long period of time. Weather patterns for about 30 years can be used to describe the climate of a particular place.
7. **Global Climate** – the average climate of the entire Earth.
8. **Climate Change** – a significant change in the climate over time.
9. **Fossil Fuel** – an energy-rich substance type of fuel that is created from dead plant and animal material trapped between layers of rock deep within the Earth. Over millions of years, heat and pressure transform this material into fossil fuels. Some examples of fossil fuels are coal, oil, and natural gas. Humans burn fossil fuels to make energy. When fossil fuels are burned, they release carbon dioxide, a greenhouse gas.
10. **Coal** – a dark-colored rock that is mined from the Earth’s surface and can be burned to create energy. Coal is a type of fossil fuel.
11. **Oil** – a dark-colored liquid that can be found deep in the Earth. It can be refined to make gasoline, diesel, asphalt, and plastics. Oil is a type of fossil fuel.



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12. **Natural Gas** – an odorless, colorless gas found in the Earth. Natural gas is a type of fossil fuel.
13. **Greenhouse Gas** – a natural or human-made gas that traps heat in the atmosphere. Examples of greenhouse gases include water vapor, carbon dioxide, methane, and ozone.
14. **Water Vapor** – water that is present in the atmosphere as gas. Water vapor is an example of a greenhouse gas.
15. **Carbon Dioxide** – a colorless, odorless gas that is released from the burning of fossil fuels, such as coal, oil, and natural gas. Carbon dioxide is an example of a greenhouse gas.
16. **Methane** – a colorless, odorless gas that is produced when plants, animals, and garbage decay. It is produced naturally and as a result of people’s activities. Methane is the most abundant greenhouse gas.
17. **Ozone** – a gas made up of three atoms of oxygen bonded together. Ozone high in the atmosphere protects the Earth’s surface from harmful ultraviolet radiation from the sun. Close to earth, ozone is a pollutant created from other pollutants that react with each other. Ozone can cause health problems in humans. It is an example of a greenhouse gas.
18. **Ultraviolet Radiation** – a type of invisible radiation that is released by the sun. Being exposed to ultraviolet radiation can cause sunburn and sometimes skin cancer and eye damage. We use sunscreen to block ultraviolet radiation from entering our skin so that we don’t get sunburned or skin cancer.
19. **Greenhouse Effect** – the process by which greenhouse gases in the atmosphere trap heat from the sun and reflect it back to Earth rather than letting it leave the planet.
20. **Global Warming** – when more and more greenhouse gases accumulate in the atmosphere, they trap more and more heat near the Earth’s surface. As more heat is held within the Earth’s atmosphere, the temperature near the Earth’s surface gradually warms up. This is called global warming. In other words, global warming occurs when there is “too much” of the greenhouse effect. Although the overall global temperature is warming, some places on the Earth may experience different climate changes. It takes an enormous amount of energy (heat) to change the climate of the whole planet.

21. **Adaptation** – human actions that respond to climate change in a way that minimizes its effects on ecosystems and on humans. For example, if the climate is getting warmer, we might wear light-weight clothing more often in order to *adapt* to an increase in hot weather.
22. **Mitigation** – taking actions in order to decrease the amount of greenhouse gases in the atmosphere. For example, we might drive an electric car instead of a gas-powered car so that less carbon dioxide is released into the atmosphere.
23. **Carbon footprint** – the total amount of greenhouse gases released by a person, family, building, organization, or company each year. A person’s carbon footprint includes the amount of greenhouse gases released from direct use (such as heating a home or driving a car) and from indirect use (such as the amount of fuel needed to produce a good or a service).
24. **Renewable Resource** – a natural resource that can be made or regrown as fast as it is being used. Some examples are wind power or solar energy, which are both used to make electricity. Fossil fuels are NOT renewable resources because they take millions of years to make, and we are burning them more quickly than they are being formed.
25. **Extreme Weather Event** – severe weather such as a blizzard, tornado, severe thunderstorm, or heat wave.
26. **Drought** – a period of unusually dry weather that causes significant shortages of water for ecosystems and for humans.
27. **Infectious Disease** – an illness caused by bacteria, viruses, parasites, or other organisms that enter and grow in the human body. Not all bacteria, viruses, and parasites that enter or live in the body cause disease. Some infectious diseases can be spread from person to person.
28. **Invasive Species** – a plant, animal, or other organism that does not naturally live in a particular environment but has been introduced there, often by humans. An invasive species can harm native species, ecosystems, and create problems for people.
29. **Pollutant** – a substance that contaminates the air or water. Pollutants can cause problems in ecosystems as well as health problems in humans.
30. **Allergen** – a substance that causes allergies. Examples include dust, mold, and pollen.
31. **Asthma** – A disease that affects people’s lungs and makes it difficult to breath. Air pollution, allergens, heavy exercise, and certain weather conditions can trigger an asthma attack.

**Source:**

*'Climate Change Vocabulary' has been adapted from the United States Environmental Protection Agency: "A Student's Guide to Global Climate Change: Glossary". 9/9/2013. <http://www.epa.gov/climatestudents/glossary.html>  
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