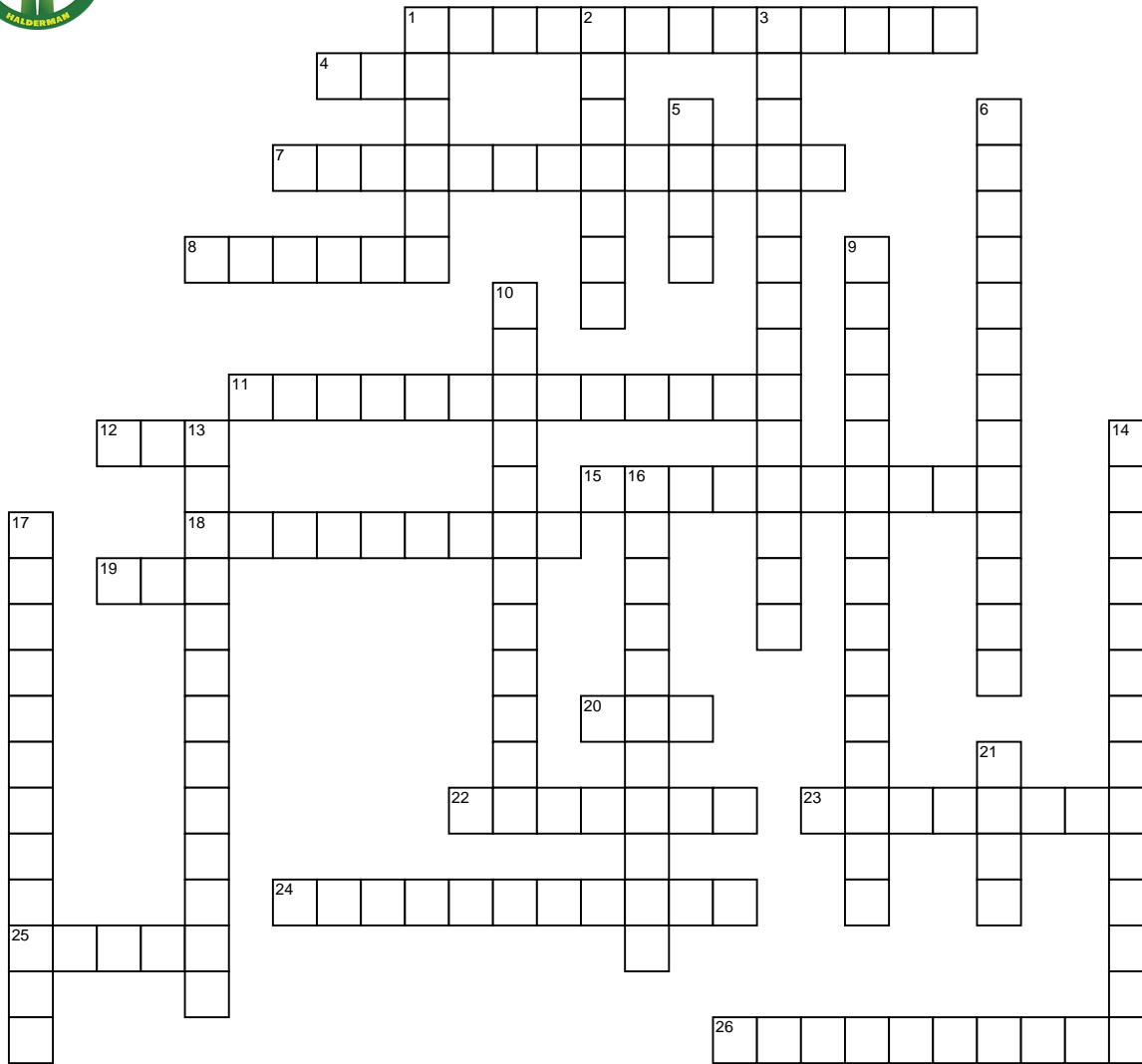




# Carbon-Based Society and the Environment

## Chapter 3



### ACROSS

- 1 \_\_\_\_\_ is a colorless, odorless gas produced by burning carbon and organic compounds and by respiration.
- 4 \_\_\_\_\_ is radiation that is in the region of the ultraviolet spectrum which is nearest to visible light and extends from about 320 to 400 nm in wavelength and that causes tanning and contributes to aging of the skin.
- 7 \_\_\_\_\_ is the gradual increase in the overall temperature of the earth's atmosphere generally attributed to the greenhouse effect caused by increased levels of carbon

- dioxide, chlorofluorocarbons, and other pollutants.
- 8 \_\_\_\_\_ is colorless, odorless reactive gas, the chemical element of atomic number 8 and the life-supporting component of the air.
- 11 The \_\_\_\_\_ is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change.
- 12 \_\_\_\_\_ means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions

- 15 \_\_\_\_\_ is a particular kind of matter with uniform properties.
- 18 \_\_\_\_\_ is the emission of energy as electromagnetic waves or as moving subatomic particles, especially high-energy particles that cause ionization.
- 19 \_\_\_\_\_ is radiation that is in the region of the ultraviolet spectrum which extends from about 280 to 320 nm in wavelength and that is primarily responsible for sunburn, aging of the skin, and the development of skin cancer.
- 20 \_\_\_\_\_ is the most dangerous type of ultraviolet light but cannot penetrate

- earth's protective ozone layer. Therefore, it poses no threat to human, animal or plant life on earth. UVA and UVB, on the other hand, do penetrate the ozone layer in attenuated form and reach the surface of the planet.
- 22 The hypothetical point in time when the global production of oil reaches its maximum rate, after which production will gradually decline.
- 23 \_\_\_\_\_ is a chemical element with symbol N and atomic number 7.
- 24 The \_\_\_\_\_ is the lowest region of the atmosphere, extending from the earth's surface to a height of about

- 3.7–6.2 miles (6–10 km), which is the lower boundary of the stratosphere.
- 25 \_\_\_\_\_ is colorless unstable toxic gas with a pungent odor and powerful oxidizing properties, formed from oxygen by electrical discharges or ultraviolet light.
- 26 \_\_\_\_\_ is the flux of radiant energy per unit area (normal to the direction of flow of radiant energy through a medium).

### DOWN

- 1 A \_\_\_\_\_ is the chemical element of atomic number 6, a nonmetal that has two main forms (diamond and graphite) and that also occurs in impure

- form in charcoal, soot, and coal.
- 2 of, relating to, or derived from living matter.
- 3 \_\_\_\_\_ is the term commonly used to describe the thinning of the ozone layer in the stratosphere.
- 5 \_\_\_\_\_ is Fog or haze combined with smoke and other atmospheric pollutants.
- 6 A \_\_\_\_\_ is any gaseous compound in the atmosphere that is capable of absorbing infrared radiation, thereby trapping and holding heat in the atmosphere.
- 9 The \_\_\_\_\_ is the amount of carbon dioxide and other carbon compounds emitted due to the consumption of fossil fuels by a particular person, group, etc.
- 10 The \_\_\_\_\_ is the layer of the earth's atmosphere above the troposphere, extending to about 32 miles (50 km) above the earth's surface (the lower boundary of the mesosphere).
- 13 A \_\_\_\_\_ is a biological molecule consisting of carbon, hydrogen and oxygen atoms, usually with a hydrogen
- 14 \_\_\_\_\_ is a colorless, odorless, and tasteless gas that is slightly less dense than air.
- 16 (of electromagnetic radiation) having a wavelength shorter than that of the violet end of the visible spectrum but longer than that of X-rays.
- 17 \_\_\_\_\_ is a compound of hydrogen and carbon, such as any of those that are the chief components of petroleum and natural gas.
- 21 \_\_\_\_\_ is a black powdery or flaky substance consisting largely of amorphous carbon, produced by the incomplete burning of organic matter.