



Chemistry of the Atmosphere

Multiple Choice Questions

Set 1

You may use a periodic table to help you answer these questions.

Tick **one** box.

1. Which gas makes up approximately four-fifths of the present-day atmosphere?
 - A. carbon dioxide
 - B. methane
 - C. nitrogen
 - D. oxygen
2. What is believed to have released the gases which formed the Earth's early atmosphere?
 - A. bacteria
 - B. fossil fuels
 - C. plants
 - D. volcanoes
3. Which gas was first produced by algae and plants about 2.7 billion years ago?
 - A. carbon dioxide
 - B. methane
 - C. nitrogen
 - D. oxygen
4. When the first oceans formed, which gas dissolved in their waters, reducing its quantity in the early atmosphere?
 - A. carbon dioxide
 - B. methane
 - C. nitrogen
 - D. oxygen
5. Why are greenhouse gases in the atmosphere important?
 - A. they are highly toxic
 - B. they are needed for cellular respiration
 - C. they maintain a temperature on Earth which can support life
 - D. they protect the Earth's surface from solar flares



6. Which of these human activities leads to an increase in atmospheric methane?
- A. cattle farming
 - B. combustion of fossil fuels
 - C. deforestation
 - D. use of transportation
7. Scientists believe there is a link between the rising average global temperature and which of the following effects?
- A. changes in the global distribution of rainfall
 - B. increased frequency and severity of storms
 - C. rising sea levels
 - D. all of the above
8. What is a carbon footprint?
- A. the amount of carbon dioxide released when a fuel is burned
 - B. the amount of carbon dioxide that is emitted by a product or person in its lifetime
 - C. the amount of carbon stored in the ground
 - D. the total amount of all greenhouse gases emitted by a product, service, or event over its life cycle
9. What are the products of the complete combustion of propane, C_3H_8 ?
- A. carbon dioxide and water
 - B. carbon dioxide only
 - C. carbon monoxide and water
 - D. carbon monoxide only
10. Which atmospheric pollutant causes global dimming?
- A. carbon monoxide
 - B. nitrogen oxides
 - C. particulates
 - D. sulfur dioxide