

Pollution Science Fundamentals

Environmental Science · Answer Key · 15 Questions

1. Which gas is the primary contributor to the greenhouse effect as a result of human activities like fossil fuel combustion?

- A) Nitrogen
- B) Carbon dioxide**
- C) Oxygen
- D) Argon

2. What is the term for the process where nutrient runoff causes excessive plant and algal growth in water bodies, leading to oxygen depletion?

- A) Eutrophication**
- B) Biomagnification
- C) Acidification
- D) Desalination

3. Which chemical element, found in older paint and pipes, is a potent neurotoxin that can cause developmental issues in children?

- A) Iron
- B) Lead**
- C) Calcium
- D) Magnesium

4. What type of air pollution is formed when nitrogen oxides and volatile organic compounds react in the presence of sunlight?

- A) Photochemical smog**
- B) Acid rain
- C) Thermal inversion
- D) Particulate matter

5. Which layer of the atmosphere is being protected by the international phase-out of chlorofluorocarbons (CFCs)?

- A) Troposphere
- B) Mesosphere
- C) Ozone layer**
- D) Ionosphere

6. What term describes the accumulation of toxins, such as mercury, in organisms at higher levels of the food chain?

- A) Bioaccumulation
- B) Biodegradation
- C) Biomagnification**
- D) Bioremediation

7. What is the main cause of ocean acidification?

- A) Increased oil spills
- B) Absorption of excess atmospheric CO₂**
- C) Plastic waste decomposition
- D) Overfishing

8. Particulate matter smaller than 2.5 micrometers (PM_{2.5}) is particularly dangerous to human health because:

- A) It creates loud noise
- B) It can penetrate deep into the lungs and bloodstream**
- C) It is highly radioactive
- D) It immediately destroys the ozone layer

9. Which pollutant is commonly released by coal-fired power plants and contributes significantly to acid rain?

- A) Sulfur dioxide**
- B) Helium
- C) Methane
- D) Neon

10. What is the primary source of 'point source' water pollution?

- A) Runoff from agricultural fields
- B) Waste discharge from an industrial pipe**
- C) Urban street litter
- D) Atmospheric deposition

11. Persistent Organic Pollutants (POPs) are characterized by which of the following traits?

- A) They break down instantly in water
- B) They travel long distances through air and water**
- C) They are only found in urban areas
- D) They are harmless to wildlife

12. What unit is used to measure the intensity of noise pollution?

- A) Watts
- B) Decibels**
- C) Amperes
- D) Kelvin

13. Which of the following is a secondary pollutant?

- A) Carbon monoxide
- B) Ground-level ozone**
- C) Sulfur dioxide
- D) Volatile organic compounds

14. What is the main environmental impact of excessive plastic accumulation in the Great Pacific Garbage Patch?

- A) Increased global oxygen levels
- B) Ingestion and entanglement of marine life**
- C) The creation of new coral reefs
- D) Rapid cooling of ocean temperatures

15. Which mining byproduct is known for causing acid mine drainage when exposed to water and air?

- A) Pyrite**
- B) Quartz
- C) Diamond
- D) Feldspar