

Pioneers and Milestones in Environmental Science

Environmental Science · Answer Key · 15 Questions

1. Who is credited with the 1896 publication that first calculated the influence of atmospheric carbon dioxide on the Earth's surface temperature?

A) Svante Arrhenius

B) Guy Stewart Callendar

C) Charles David Keeling

D) John Tyndall

2. In 1960, which researcher established the first continuous monitoring station for atmospheric carbon dioxide at Mauna Loa Observatory?

A) Roger Revelle

B) Hans Suess

C) Charles David Keeling

D) James Hansen

3. Which scientist is recognized for the 1859 discovery that water vapor and carbon dioxide are the primary atmospheric gases responsible for the greenhouse effect?

A) Joseph Fourier

B) John Tyndall

C) Eunice Newton Foote

D) James Hutton

4. The first international treaty to successfully address a global environmental issue by phasing out ozone-depleting substances is known as the:

A) Kyoto Protocol

B) Montreal Protocol

C) Paris Agreement

D) Basel Convention

5. Who was the first scientist to propose the 'Gaia Hypothesis,' suggesting that living organisms interact with inorganic surroundings to form a self-regulating complex system?

A) Lynn Margulis

B) James Lovelock

C) Edward O. Wilson

D) Rachel Carson

6. In 1974, which two chemists published the seminal paper in 'Nature' identifying chlorofluorocarbons (CFCs) as the primary cause of ozone layer depletion?

A) Mario Molina and F. Sherwood Rowland

B) Paul Crutzen and Harold Johnston

C) Linus Pauling and Walter Kohn

D) Robert Boyle and Joseph Priestley

7. What was the first national park in the world, established in 1872 by the United States Congress?

A) Banff National Park

B) Yellowstone National Park

C) Royal National Park

D) Kruger National Park

8. The term 'biodiversity' was coined in 1985 by which scientist during the planning of the National Forum on BioDiversity?

A) Walter G. Rosen

B) E.O. Wilson

C) Thomas Lovejoy

D) Norman Myers

9. Who authored 'Silent Spring' in 1962, a foundational work that led to the first nationwide ban on DDT in the United States?

A) Jane Goodall

B) Rachel Carson

C) Aldo Leopold

D) Wangari Maathai

10. Which device, invented in 1957, was essential for the first satellite-based measurements of Earth's radiation budget?

A) Radiometer

B) Spectrometer

C) Lidar

D) Seismograph

11. The first large-scale scientific expedition to map the ocean floor and discover the mid-ocean ridge system was the:

A) Challenger Expedition

B) Fram Expedition

C) Beagle Expedition

D) Meteor Expedition

12. In 1972, the first major United Nations conference on international environmental issues was held in which city?

- A) Nairobi
- B) Rio de Janeiro
- C) Stockholm**
- D) Geneva

13. Who conducted the first quantitative analysis of 'acid rain' in 1852, documenting the phenomenon in industrial Manchester?

- A) Robert Angus Smith**
- B) Gilbert White
- C) Carl Linnaeus
- D) Alexander von Humboldt

14. The first successful commercial-scale nuclear power plant to generate electricity for a public grid was opened in 1954 in which country?

- A) United States
- B) United Kingdom
- C) Soviet Union**
- D) France

15. Which ecological concept, describing the interrelationship between organisms and their environment, was first coined by Ernst Haeckel in 1866?

- A) Ecosystem
- B) Biome
- C) Ecology**
- D) Niche