

# Understanding Climate Change Basics

Climate Change · Practice Test · 20 Questions

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## 1. What is the primary cause of the current, rapid climate change?

- A) Natural variations in Earth's orbit
- B) Volcanic eruptions releasing ash
- C) Increased greenhouse gas emissions from human activities
- D) Changes in solar radiation intensity

## 2. Which gas is the most abundant greenhouse gas in Earth's atmosphere?

- A) Carbon dioxide (CO<sub>2</sub>)
- B) Methane (CH<sub>4</sub>)
- C) Nitrous oxide (N<sub>2</sub>O)
- D) Water vapor (H<sub>2</sub>O)

## 3. What is the term for the long-term heating of Earth's climate system observed since the pre-industrial period (between 1850 and 1900) due to human activities?

- A) Climate oscillation
- B) Global warming
- C) Weather fluctuation
- D) Atmospheric cooling

## 4. Melting glaciers and ice sheets contribute to which of the following?

- A) Decreased sea levels
- B) Increased global temperatures
- C) Rising sea levels
- D) More predictable weather patterns

## 5. Which human activity is a major source of carbon dioxide (CO<sub>2</sub>) emissions?

- A) Recycling plastic
- B) Planting trees
- C) Burning fossil fuels (coal, oil, natural gas)
- D) Using solar power

## 6. What is the 'greenhouse effect'?

- A) A process that cools the planet
- B) The trapping of heat by gases in Earth's atmosphere
- C) A natural phenomenon that causes ice ages
- D) The reflection of sunlight back into space

**7. Which of the following is a consequence of climate change?**

- A) Decreased frequency of extreme weather events
- B) More stable ocean currents
- C) Increased frequency and intensity of extreme weather events
- D) Expansion of polar ice caps

**8. What is the main component of the air that acts as a greenhouse gas, whose concentration is increasing due to human activities?**

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

**9. Which international body provides scientific assessments on climate change?**

- A) The World Health Organization (WHO)
- B) The International Monetary Fund (IMF)
- C) The Intergovernmental Panel on Climate Change (IPCC)
- D) The United Nations Educational, Scientific and Cultural Organization (UNESCO)

**10. Ocean acidification is a direct result of increased absorption of which gas by the oceans?**

- A) Oxygen
- B) Nitrogen
- C) Methane
- D) Carbon dioxide

**11. Deforestation contributes to climate change primarily by:**

- A) Increasing the amount of oxygen in the atmosphere
- B) Reducing the amount of carbon dioxide absorbed from the atmosphere
- C) Cooling the planet by removing shade
- D) Increasing rainfall in affected areas

**12. Which of these is a renewable energy source that can help reduce greenhouse gas emissions?**

- A) Coal
- B) Natural gas
- C) Solar power
- D) Petrol

**13. The average temperature of the Earth's surface has been observed to be increasing.**

**This is a key indicator of:**

- A) Natural climate cycles
- B) Global warming
- C) Short-term weather variations
- D) Volcanic activity

**14. Which of the following is a common consequence of rising sea levels?**

- A) Increased freshwater availability
- B) Coastal erosion and flooding
- C) Expansion of coral reefs
- D) Reduction in storm intensity

**15. Which industrial process is a significant source of methane (CH<sub>4</sub>) emissions?**

- A) Manufacturing paper
- B) Livestock farming and waste management
- C) Producing electricity from wind
- D) Operating wind turbines

**16. The increase in atmospheric carbon dioxide is primarily linked to:**

- A) The natural decay of organic matter
- B) Volcanic eruptions
- C) The burning of fossil fuels and deforestation
- D) The oceans absorbing too much oxygen

**17. What does the term 'climate' refer to?**

- A) The weather on a specific day
- B) The average weather conditions over a long period in a region
- C) The temperature of a single city
- D) The amount of rainfall in a season

**18. Permafrost, a layer of soil that remains frozen year-round, is thawing due to warming temperatures. This thawing can release large amounts of what greenhouse gas?**

- A) Oxygen
- B) Nitrous oxide
- C) Methane
- D) Carbon monoxide

**19. Which country is a major contributor to global greenhouse gas emissions due to its large population and industrial activity?**

- A) Brazil
- B) Canada
- C) China
- D) Argentina

**20. What is the primary goal of international climate agreements like the Paris Agreement?**

- A) To increase fossil fuel production
- B) To limit global warming to well below 2 degrees Celsius, preferably to 1.5 degrees Celsius, compared to pre-industrial levels
- C) To encourage deforestation
- D) To promote the use of single-use plastics