

Fundamentals of Climate Change

Climate Science · Answer Key · 8 Questions

1. Which gas is the primary driver of the current human-induced greenhouse effect?

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

2. What is the main cause of the rise in global sea levels?

- A) Increased rainfall
- B) Melting land ice and thermal expansion**
- C) More underwater volcanoes
- D) Change in ocean currents

3. Which layer of the atmosphere acts like a blanket to trap heat around the Earth?

- A) Troposphere**
- B) Stratosphere
- C) Mesosphere
- D) Thermosphere

4. What happens to the Earth's average temperature when greenhouse gas concentrations increase?

- A) It stays the same
- B) It decreases significantly
- C) It increases**
- D) It fluctuates randomly

5. The 'greenhouse effect' is a process that occurs when gases in Earth's atmosphere do what?

- A) Trap heat**
- B) Create wind
- C) Reflect starlight
- D) Cool the oceans

6. Which of the following is a major source of atmospheric carbon dioxide?

- A) Solar power generation
- B) Burning fossil fuels**
- C) Growing forests
- D) Volcanic eruptions

7. What is the relationship between Arctic sea ice and global temperatures?

A) As temperatures rise, sea ice melts

B) As temperatures rise, sea ice grows

C) Sea ice has no effect on temperature

D) Sea ice grows during heatwaves

8. What term describes the long-term shift in global or regional climate patterns?

A) Weather

B) Climate change

C) Seasonal transition

D) Tidal fluctuation