

Basics of Climatology

Climatology · Answer Key · 4 Questions

1. What is the primary difference between weather and climate?

- A) Weather is measured in oceans; climate is measured on land
- B) Weather describes short-term conditions; climate describes long-term average patterns**
- C) Weather only refers to rainfall; climate only refers to temperature
- D) Climate changes daily; weather changes over decades

2. What is the primary source of energy that drives Earth's climate system?

- A) The Sun**
- B) Earth's core
- C) Volcanic eruptions
- D) Ocean currents

3. In which layer of Earth's atmosphere does almost all weather and climate activity occur?

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

4. Which gas is the primary human-emitted greenhouse gas driving modern global climate change?

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