

Advanced Earth Science Knowledge Assessment

Earth Science · Practice Test · 15 Questions

1. Which of the following is the most abundant mineral in the Earth's crust by weight?

- A) Quartz
- B) Feldspar
- C) Mica
- D) Amphibole

2. The Mohs Hardness Scale ranks minerals based on their ability to resist what?

- A) Scratching
- B) Breaking
- C) Dissolving
- D) Magnetization

3. What is the primary mechanism for heat transfer within the Earth's mantle?

- A) Conduction
- B) Radiation
- C) Convection
- D) Advection

4. The Mariana Trench, the deepest part of the world's oceans, is located in which ocean?

- A) Atlantic Ocean
- B) Indian Ocean
- C) Arctic Ocean
- D) Pacific Ocean

5. Which type of sedimentary rock is formed from the accumulation and lithification of organic matter?

- A) Sandstone
- B) Shale
- C) Limestone
- D) Coal

6. The Coriolis effect, which influences wind and ocean currents, is a result of Earth's what?

- A) Axial tilt
- B) Orbital speed
- C) Rotation
- D) Magnetic field

7. Which geological era is characterized by the diversification of complex animal life, including the Cambrian Explosion?

- A) Precambrian
- B) Paleozoic
- C) Mesozoic
- D) Cenozoic

8. The 'Ring of Fire' is a region around the Pacific Ocean known for its high concentration of what?

- A) Deserts
- B) Glaciers
- C) Volcanoes and earthquakes
- D) Tropical rainforests

9. What is the main process responsible for the formation of clouds?

- A) Precipitation
- B) Evaporation
- C) Condensation
- D) Transpiration

10. The Earth's magnetic field is generated by the movement of molten iron in which part of the Earth?

- A) Crust
- B) Mantle
- C) Inner core
- D) Outer core

11. Which atmospheric layer contains the ozone layer, which absorbs most of the Sun's ultraviolet radiation?

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

12. What term describes the process by which solid rock is transformed into magma?

- A) Erosion
- B) Weathering
- C) Melting
- D) Sublimation

13. The majority of Earth's freshwater is found in what form?

- A) Rivers and lakes
- B) Groundwater
- C) Atmospheric vapor
- D) Glaciers and ice caps

14. What is the name for a scientist who studies earthquakes?

- A) Volcanologist
- B) Meteorologist
- C) Seismologist
- D) Paleontologist

15. The composition of Earth's atmosphere is approximately 78% nitrogen, 21% oxygen, and what percentage for the remaining gases (primarily argon)?

- A) 0.5%
- B) 1%
- C) 2%
- D) 5%