

# Earth Science Fundamentals

Earth Science · Answer Key · 12 Questions

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**1. Which layer of the Earth is primarily composed of iron and nickel and exists in both liquid and solid states?**

- A) Crust
- B) Mantle
- C) Outer Core**
- D) Inner Core

**2. The process by which solid rock is transformed into metamorphic rock through heat and pressure is known as:**

- A) Weathering
- B) Erosion
- C) Metamorphism**
- D) Deposition

**3. What is the primary driving force behind the movement of tectonic plates?**

- A) Ocean currents
- B) Earth's rotation
- C) Convection currents in the mantle**
- D) Gravitational pull of the Moon

**4. The 'Ring of Fire' is a region around the Pacific Ocean known for its high concentration of:**

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

**5. Which atmospheric layer is responsible for weather phenomena such as clouds, rain, and storms?**

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

**6. The Coriolis effect, which influences the direction of winds and ocean currents, is a result of:**

- A) Solar radiation
- B) The Earth's revolution around the Sun
- C) The Earth's rotation**
- D) Changes in atmospheric pressure

**7. Oceanic trenches, the deepest parts of the ocean floor, are typically formed at:**

- A) Mid-ocean ridges
- B) Divergent plate boundaries
- C) Convergent plate boundaries (subduction zones)**
- D) Hotspots

**8. Which geological timescale unit represents the largest division of time in Earth's history?**

- A) Era
- B) Period
- C) Epoch
- D) Eon**

**9. The process by which water vapor in the atmosphere turns into liquid water, forming clouds, is called:**

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

**10. What is the term for a large, naturally occurring mass of ice that moves slowly over land?**

- A) Iceberg
- B) Snowpack
- C) Glacier**
- D) Permafrost

**11. The deflection of seismic waves as they pass through different layers of the Earth provides evidence for:**

- A) The composition of the atmosphere
- B) The existence of subsurface water reserves
- C) The layered structure of the Earth's interior**
- D) The rate of continental drift

**12. Which type of rock is formed from the cooling and solidification of molten rock (magma or lava)?**

- A) Sedimentary rock
- B) Metamorphic rock
- C) Igneous rock**
- D) Fossiliferous rock