

Foundations of Earth Science

Geology · Answer Key · 15 Questions

1. Which layer of the Earth is composed primarily of liquid iron and nickel?

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

2. What type of rock is formed from the cooling and solidification of molten magma or lava?

- A) Sedimentary
- B) Metamorphic
- C) Igneous**
- D) Conglomerate

3. Which scale is commonly used to measure the intensity of an earthquake based on energy release?

- A) Mohs scale
- B) Richter scale**
- C) Beaufort scale
- D) Fujita scale

4. What is the most abundant gas in the Earth's atmosphere?

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

5. Which mineral is defined as having a hardness of 10 on the Mohs scale?

- A) Quartz
- B) Diamond**
- C) Topaz
- D) Corundum

6. What is the process by which rocks are broken down into smaller pieces by wind, water, or ice?

- A) Weathering**
- B) Subduction
- C) Metamorphism
- D) Crystallization

7. The San Andreas Fault is an example of which type of plate boundary?

- A) Divergent
- B) Convergent
- C) Transform**
- D) Subduction

8. Which geological era is often referred to as the 'Age of Dinosaurs'?

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

9. What is the primary component of the Earth's continental crust?

- A) Basalt
- B) Granite**
- C) Limestone
- D) Obsidian

10. What is the name of the supercontinent that existed approximately 250 million years ago?

- A) Gondwana
- B) Laurasia
- C) Pangaea**
- D) Rodinia

11. Which type of rock is most likely to contain fossils?

- A) Igneous
- B) Metamorphic
- C) Sedimentary**
- D) Volcanic

12. What phenomenon occurs when soil loses its strength and behaves like a liquid during an earthquake?

- A) Liquefaction**
- B) Subduction
- C) Erosion
- D) Deposition

13. Which layer of the Earth is responsible for the movement of tectonic plates?

- A) Lithosphere
- B) Asthenosphere**
- C) Outer core
- D) Inner core

14. What is the chemical symbol for the most common mineral group found in the Earth's crust, the silicates?

- A) SiO₂**
- B) Fe₂O₃
- C) CaCO₃
- D) NaCl

15. Which force is primarily responsible for the formation of fold mountains?

- A) Erosion
- B) Volcanism
- C) Tectonic compression**
- D) Glaciation