

High School Geology Foundations

Geology · Practice Test · 12 Questions

1. What type of plate boundary occurs when two tectonic plates slide horizontally past one another?

- A) Transform boundary
- B) Divergent boundary
- C) Convergent boundary
- D) Subduction zone

2. Which mineral is defined as having a hardness of 10 on the Mohs Hardness Scale?

- A) Quartz
- B) Corundum
- C) Diamond
- D) Fluorite

3. Which seismic wave travels fastest through the Earth and can move through both solids and liquids?

- A) S-wave
- B) P-wave
- C) Love wave
- D) Rayleigh wave

4. What geological process turns unconsolidated sediments into solid rock through compaction and cementation?

- A) Metamorphism
- B) Lithification
- C) Crystallization
- D) Weathering

5. Intrusive igneous rocks such as granite typically exhibit which texture due to slow cooling beneath Earth's surface?

- A) Aphanitic
- B) Phaneritic
- C) Glassy
- D) Vesicular

6. Which Earth layer is predominantly composed of liquid iron and nickel?

- A) Inner core
- B) Outer core
- C) Lower mantle
- D) Asthenosphere

7. What type of fault forms when the hanging wall moves downward relative to the footwall under tensional stress?

- A) Reverse fault
- B) Thrust fault
- C) Normal fault
- D) Strike-slip fault

8. Foliation is a parallel alignment of mineral grains most characteristic of which rock group?

- A) Intrusive igneous rocks
- B) Extrusive igneous rocks
- C) Metamorphic rocks
- D) Chemical sedimentary rocks

9. Which relative dating principle states that in undisturbed sedimentary rock layers, the oldest layer lies at the bottom?

- A) Principle of Superposition
- B) Principle of Original Horizontality
- C) Principle of Cross-Cutting Relationships
- D) Principle of Inclusions

10. Which volcano type features broad, gently sloping sides created by low-viscosity basaltic lava flows?

- A) Stratovolcano
- B) Composite cone
- C) Shield volcano
- D) Cinder cone

11. What primary chemical process creates acidic groundwater capable of dissolving limestone to form karst caves?

- A) Carbon dioxide dissolving in water to form carbonic acid
- B) Oxidation of iron-rich minerals
- C) Hydrolysis of feldspar into clay
- D) Thermal dissolution by magma

12. Which boundary defines the seismic discontinuity between the Earth's crust and the upper mantle?

- A) Gutenberg discontinuity
- B) Mohorovicic discontinuity
- C) Lehmann discontinuity
- D) Conrad discontinuity