

# Fundamental Geology Quiz

Geology · Answer Key · 23 Questions

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## 1. What is the primary process responsible for the formation of igneous rocks?

- A) Compaction and cementation of sediments
- B) Cooling and solidification of molten rock**
- C) Transformation of existing rocks under heat and pressure
- D) Erosion and deposition of weathered material

## 2. Which layer of the Earth is primarily composed of solid iron and nickel and generates the planet's magnetic field?

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

## 3. The theory of plate tectonics explains the movement of Earth's lithosphere. What is the lithosphere?

- A) The molten layer beneath the mantle
- B) The liquid outer core
- C) The rigid outer shell of the Earth, including the crust and upper mantle**
- D) The gaseous atmosphere

## 4. What is a mineral?

- A) Any naturally occurring solid with a defined chemical composition and crystal structure**
- B) A fragment of rock that has been broken down
- C) A liquid substance found within the Earth's crust
- D) Any organic material found in sedimentary layers

## 5. Which type of rock is formed from the remains of plants and animals or from chemical precipitation?

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

## 6. Earthquakes are most commonly caused by:

- A) Volcanic eruptions
- B) Meteorite impacts
- C) Movement along faults**
- D) Tidal forces

**7. What geological process involves the breakdown and transport of rocks and minerals?**

- A) Metamorphism
- B) Deposition
- C) Erosion and weathering**
- D) Solidification

**8. The majority of Earth's active volcanoes are located along:**

- A) Continental divides
- B) The equator
- C) Plate boundaries**
- D) Mountain ranges

**9. What is the term for the process by which existing rocks are transformed into new rocks by heat, pressure, or chemical reactions?**

- A) Igneous intrusion
- B) Metamorphism**
- C) Sedimentation
- D) Fossilization

**10. The Earth's crust is divided into large pieces called:**

- A) Magma chambers
- B) Tectonic plates**
- C) Oceanic trenches
- D) Continental shelves

**11. Which of the following is the hardest known mineral on the Mohs hardness scale?**

- A) Quartz
- B) Feldspar
- C) Diamond**
- D) Calcite

**12. What is a fossil?**

- A) A type of volcanic rock
- B) The preserved remains or traces of ancient life**
- C) A layer of sediment
- D) A mineral deposit

**13. What geological feature is formed when two tectonic plates move apart?**

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

**14. The thickest layer of the Earth, making up about 84% of its volume, is the:**

- A) Crust
- B) Inner Core
- C) Outer Core

**D) Mantle**

**15. What is the scientific study of rocks called?**

- A) Paleontology
- B) Seismology
- C) Mineralogy

**D) Petrology**

**16. The process by which sediments are compacted and cemented together to form sedimentary rock is called:**

- A) Erosion
- B) Metamorphism

**C) Lithification**

D) Volcanism

**17. What is the driving force behind most volcanic activity and earthquakes?**

- A) Solar radiation
- B) Ocean currents

**C) Plate tectonics**

D) Atmospheric pressure

**18. The outermost solid shell of a rocky planet, dwarf planet, or natural satellite is called the:**

- A) Mantle
- B) Core

**C) Crust**

D) Atmosphere

**19. What are the two main types of crust on Earth?**

**A) Continental and Oceanic**

- B) Granitic and Basaltic
- C) Thick and Thin
- D) Young and Old

**20. Which of these is a characteristic property of minerals?**

- A) Amorphous structure
- B) Defined chemical composition**
- C) Organic origin
- D) Variable hardness

**21. What is the scientific study of earthquakes called?**

- A) Volcanology
- B) Seismology**
- C) Tectonics
- D) Stratigraphy

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

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

**23. What are the three main types of rocks?**

- A) Igneous, Sedimentary, and Metamorphic**
- B) Granite, Basalt, and Sandstone
- C) Hard, Soft, and Medium
- D) Crystalline, Clastic, and Chemical