

Fundamental Geology Quiz

Geology · Practice Test · 23 Questions

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