

1. Plate Tectonic Theory explains :
  - a. Geomagnetism
  - b. Volcanoes
  - c. Mountains
  - d. Earthquakes
  - e. All of the above
2. Science is a \_\_\_\_\_ process.
  - a. Fearful
  - b. Dishonest
  - c. Democratic
  - d. Intellectual
3. Which is the densest layer in the earth?
  - a. Crust
  - b. Inner Core
  - c. Outer Core
  - d. Mantle
4. How old are the oldest rocks on the ocean floor?
  - a. about 20 million years old
  - b. about 600 million years old
  - c. about 200 million years old
  - d. about 4.0 billion years old
5. What is the most common element in the crust?
  - a. Iron
  - b. Aluminum
  - c. Silicon
  - d. Oxygen
6. Geo-Scientists study which of the following:
  - a. The moon
  - b. Earthquakes
  - c. Plate tectonics
  - d. Rocks
  - e. All of the Above
7. Over which tectonic plate is Baton Rouge, LA located?
  - a. Over the Nazca Plate
  - b. Over the Pacific Plate
  - c. Over the North American Plate
  - d. Over the Arctic Plate
8. Which of these forces has a major effect on plate tectonics?
  - a. Strong molecular force
  - b. Weak molecular force
  - c. Electromagnetic force
  - d. Gravitational force

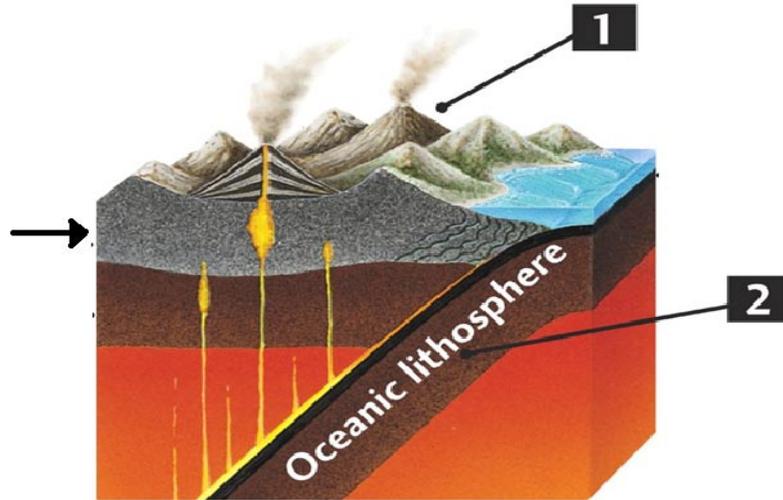
9. The following is known as what: "Natural laws do not change but rates, intensity and location within the universe where these processes occur may vary."
- Principle of Processes
  - Archimedes Principle
  - Principle of Uniformitarianism
  - Law of Gravity
10. The concept of Continental Drift was first introduced by:
- Albert Einstein
  - Alfred Wegner
  - Matthew Perry
  - Harry Hess
11. The second layer of the Earth is known as the:
- Mantle
  - Crust
  - Inner Core
  - Outer Core
12. Which of these is NOT evidence for plate tectonics
- Index minerals found in metamorphic zones
  - Volcanoes along plate margins
  - Same fossils found on different continents
  - Magnetic reversals in the seafloor
13. When did the supercontinent Pangaea begin to break apart?
- about 65 million years ago
  - about 570 million years ago
  - about 200 million years ago
  - about 1.5 billion years ago
14. We divide the Earth into crust, mantle and core based on:
- Mechanical Properties
  - Chemical Compositions
  - Temperature Gradient
  - None of the Above
15. Plate tectonic boundaries where plates slide past each other are called...
- Divergent
  - Convergent
  - Transform
  - None of the above
16. What is the dominant type of bonding found in minerals?
- Ionic
  - Metallic
  - Nuclear
  - Covalent
17. The Great Rift Valley of East Africa is an early-stage\_\_\_\_\_.
- convergent boundary
  - divergent boundary
  - transform boundary
  - deep-sea trench

18. The theory of continental drift is best supported by which of the following pieces of evidence?
- Matching ancient rock assemblages across continents
  - Matching ancient fossils across continents
  - Matching ancient earthquake evidence across continents
  - A and B
19. In general, can continental crust be subducted into the lowermost mantle?
- No, because continental crust is of too low a density to sink into the mantle
  - Yes, because continental crust is the densest part of the plate
  - No, because continental crust is almost never found anywhere near a convergent boundary
  - None of the above
20. Which of the following is NOT a type of plate boundary?
- Antiform
  - Divergent
  - Convergent
  - Transform
21. Which of the following are used to study the deep inner structure of the Earth?
- Electron Microscope
  - Seismic Waves
  - Telescope
  - Drill Cores
22. The Mid-Atlantic Ridge is a type of what kind of plate boundary:
- Convergent
  - Divergent
  - Transform
  - None of the above
23. Continental crust is composed mainly of :
- Granite
  - Basalt
  - Diabase
  - Galena
24. The oldest oceanic crust is normally located where:
- In Subduction zones
  - At Mid-ocean ridges
  - Inside trenches
  - Along continental transform faults
25. Which one(s) of these subatomic particles are found in the atom nucleus?
- Proton
  - Neutron
  - All of above
  - None of above
26. Beginning of ocean formation starts with:
- Subduction
  - Mountain building
  - Rifting
  - Transform fault earthquakes

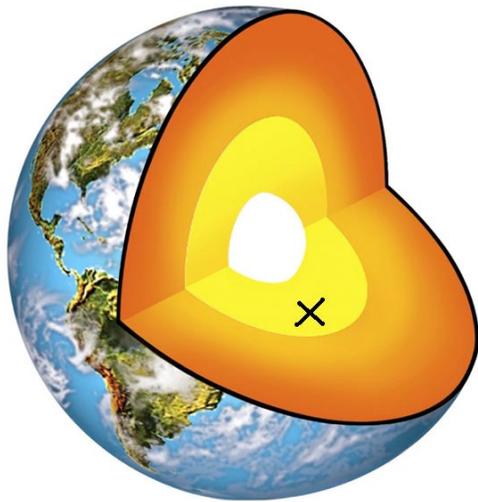
27. A naturally occurring, solid, crystalline substance (ordered atomic arrangement), generally inorganic, with a definite chemical composition.
- Rocks
  - Minerals
  - Quartz
  - Mineraloids
28. A naturally-occurring consolidated mixture of minerals or mineral-like substances.
- Rocks
  - Minerals
  - Quartz
  - Mineraloids
29. Which bonding force is stronger?
- Ionic bonding
  - Covalent bonding
  - Van der Waals
  - Metallic bonding
30. Volcanoes can form at ...
- Convergent Plate Boundaries
  - Divergent Plate Boundaries
  - Hot Spots
  - All of the Above
31. Which of the following mineral is the hardest mineral.
- Talc
  - Fluorite
  - Calcite
  - Quartz
32. Which of the following mineral is the least hard.
- Talc
  - Fluorite
  - Calcite
  - Quartz
33. What happens when we add one electron to an atom?
- It becomes negatively charged and we call it anion
  - It becomes positively charged and we call it cation
  - It becomes positively charged and it is converted into a cation of the next element in the periodic table
  - None of above
34. If you identified the mineral quartz in a sample of igneous rock, what other minerals might you expect to find in that same sample rock?
- Olivine
  - Feldspar
  - Mica
  - B and C
35. Which of the following is an oxide
- Quartz
  - Olivine
  - Calcite
  - Hematite

36. Which rock type is the most abundant on the Earth's surface.
- Sedimentary
  - Igneous
  - Metamorphic
  - Evaporites
37. Rocks formed by the transformation of previously-existing rocks in the solid state due to increased temperature and pressure.
- Sedimentary
  - Igneous
  - Metamorphic
  - Pyroclastic
38. A positively charged ion is known as a:
- Anion
  - Cation
  - Quirk
  - Neutron
39. The oldest continental rocks are \_\_\_\_\_ than the oldest oceanic rocks.
- much older
  - slightly older
  - slightly younger
  - much younger
40. Solid materials that do not possess an orderly arrangement of atoms are called \_\_\_\_\_ .
- glasses
  - minerals
  - crystals
  - polymorphs
41. What are the main two types of igneous rocks
- Intrusive
  - Extrusive
  - Basaltic
  - A and B
42. Which of the following is crystallized from slowly cooling magma intruded within the Earth's crust; e.g. granite, gabbro.
- Intrusive
  - Extrusive
  - Foliated
  - Non-Foliated
43. Which mineral will react to acid?
- Quartz
  - Potassium Feldspar
  - Calcite
  - Biotite
44. What kind of material are fragmented pieces of magma and material erupted into the air.
- Lava
  - Magma
  - Pyroclastic
  - Sill-clastic

45. What makes the theory of plate tectonics different to the theory of continental drift?
- a. The process of mantle convection and seafloor spreading
  - b. Continents move
  - c. Volcanoes erupt along continental margins
  - d. All of the continents were once unified in a supercontinent called Pangaea.

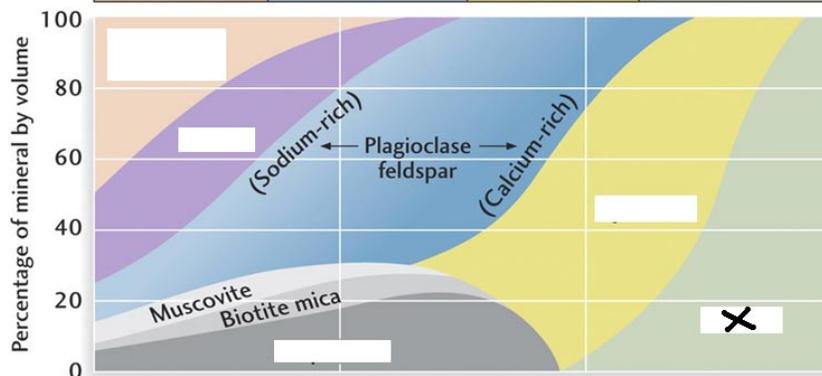


46. The arrow is pointing to
- a. Crust
  - b. Upper Mantle
  - c. Lower mantle
  - d. Asthenosphere

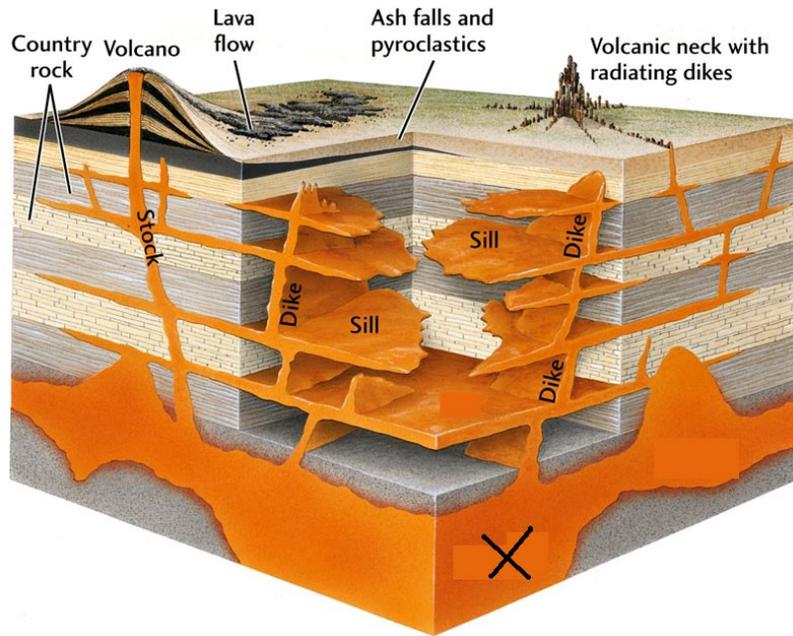


47. The "X" is located in which layer of the Earth
- Crust
  - Mantle
  - Inner Core
  - Outer Core

Composition	FELSIC	INTERMEDIATE	MAFIC	ULTRAMAFIC
Rock types	Granite Rhyolite	Diorite Andesite	Gabbro Basalt	Peridotite



48. What mineral belongs in the blank in the far right bottom corner with "x" in the blank
- Quartz
  - Olivine
  - Amphibole
  - Pyroxene



49.

The "X" is located in a large magma chamber know as a:

- a. Pluton
- b. Hot Spot
- c. sill
- d. dyke