

Science review pack 2023-2024



Name:.....

Date:.....

All my best wishes

Mrs.: Mawada Badr ELDin

1-The hypothesis that continents have slowly moved to their current locations is called _____.

- A)** continental drift
- B)** continental slope
- C)** magnetic reversal
- D)** convection

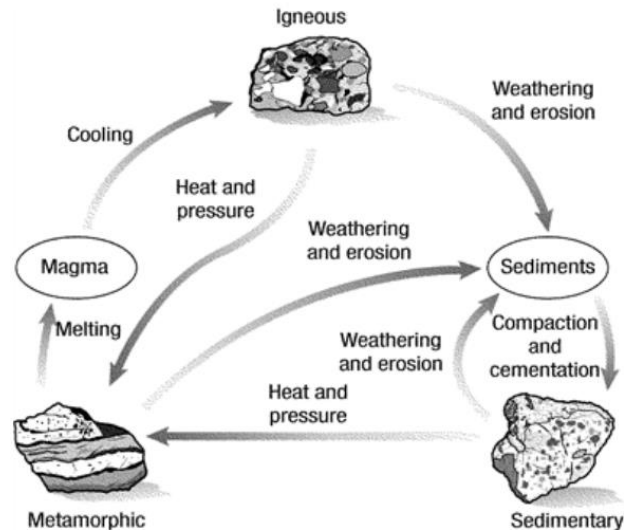
2-Continental drift states that continents have moved _____ to their current location.

- A)** vertically
- B)** slowly
- C)** quickly
- D)** very little

3- The result of plate movement can be seen at _____.

- A)** abyssal plains
- B)** ocean margins
- C)** plate centers
- D)** plate boundaries

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The rock cycle indicates that each type of rock can ____.

- A)** provide materials to make other rocks
- B)** form other rocks
- C)** be changed by forces at Earth's surface
- D)** all of the above

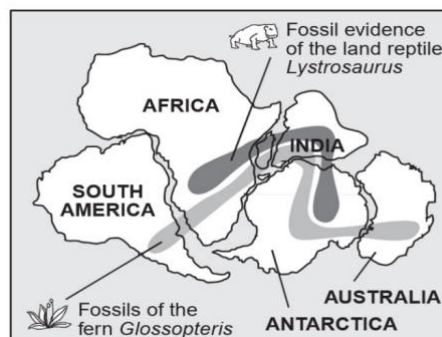
5- A student models steps in the process of how some sedimentary rocks form. First, she pours pebbles, leaves, sand, and salt into a jar. Then, she adds water to the jar until all of the contents are covered. What should the student do to her model next?

- A) Heat the jar and observe how a circular current forms.
- B) Pour the materials from the jar down a ramp and observe how they flow.
- C) Cover and shake the jar and observe the settling of the materials in the jar.
- D) Stir the contents of the jar and observe how the materials change the color of the water.

6-Stacey and her family are hiking in Olympic National Park in the state of Washington. Stacey is pointing out the valleys and explaining how they form. She knows that glaciers are still in the park. What evidence does Stacey look for to determine whether the valleys were formed by glaciers?

- A) valleys with lots of trees on either side because as the glaciers retreated they deposited seeds picked up from other areas
- B) valleys with lots of fossils in the rock layers because as the glaciers were increasing in size, the ice preserved remains of organisms
- C) valleys that are V-shaped because when the glaciers melted, the flowing water quickly cut down through rock
- D) valleys that are U-shaped because when the glaciers slowly moved through the area they scraped away and smoothed the rock

7-The diagram shows where fossils of two different species, *Lystrosaurus* and *Glossopteris*, have been found on more than one continent.



How is this kind of evidence best used by scientists?

- A) to determine how the rocks formed on the different continents
- B) to predict how the continents might look in the future with continued plate movement
- C) to explain the process of how the continents are in different locations today than in the past
- D) to support the theory that these continents were once joined together but then moved apart over time

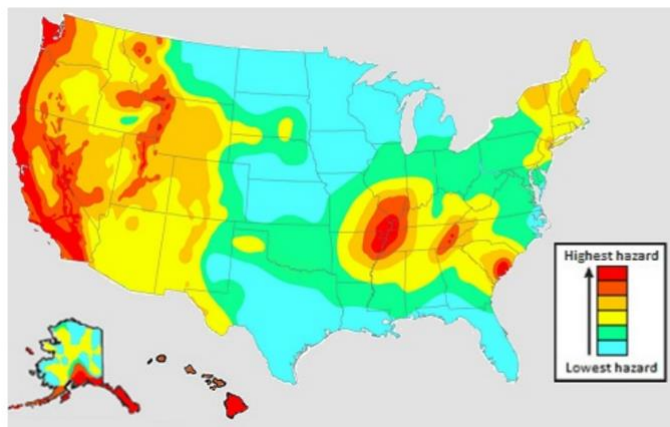
8-Ocean trenches are formed along lines where two plates diverge under the water.

- True
- False

9-Mid-ocean ridges are formed along lines where two plates diverge under the water.

- True
- False

10-If you wanted to avoid earthquakes, which would be the best choice of location?



- A)** West coast
- B)** the largest island in Hawaii
- C)** southern Alaska
- D)** the Great Lakes region

11-Where can volcanoes form?

- A)** convergent plate boundaries
- B)** divergent plate boundaries
- C)** over hotspots in the middle of plates
- D)** all of the above

12-A vast, underwater mountain chain is called a(n) _____.

- A)** deep-sea trench
- B)** oceanic crust
- C)** ocean ridge
- D)** ocean floor sediment

13-In areas where freezing and thawing occur frequently, rocks weather rapidly because of the ____ of freezing water.

- A)** evaporation
- B)** expansion
- C)** leaching
- D)** oxidation

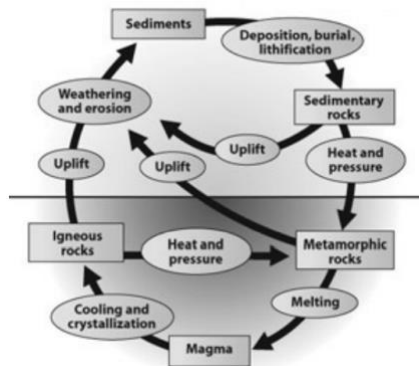
14-How are ice and plant roots weathering agents?

- A) They melt minerals in rocks.
- B) They grind and polish rock by moving particles against it.
- C) They expand within cracks in rock to break the rock apart.
- D) They are not weathering agents.

15-Name two examples of depositional environments.

16-Explain the four major causes of erosion and deposition.

17-Use the rock cycle diagram to answer the questions.



Why is the diagram of the rock cycle not just a simple circle?

18-The molten material deep inside Earth from which igneous rocks form is called ____.

- A)** magma
- B)** lava
- C)** neither a nor b
- D)** both a and b

19-A classification of metamorphic rocks would include whether they are ____.

- A)** chemical or organic
- B)** intrusive or extrusive
- C)** foliated or nonfoliated
- D)** basaltic or granite

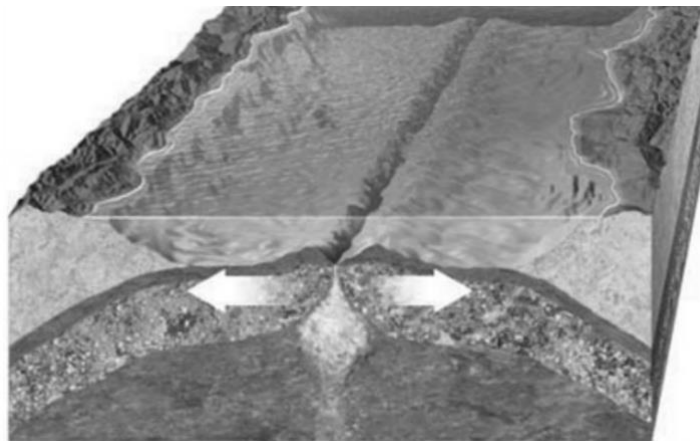
20-Sedimentary rocks are ____.

- A) formed from magma
- B) a type of foliated igneous rock
- C) formed because of changes in temperature and pressure, or the presence of hot watery fluids
- D) formed when loose materials become pressed or cemented together or when minerals form from solutions

21-A break in Earth's lithosphere along which movement occurs is called a(n) _____.

- A) fault
- B) earthquake
- C) strain
- D) stress

22-How do volcanoes form at divergent plate boundaries such as the one shown?



23-Why do volcanoes form at plate boundaries and hot spots?

24-Plates slide past one another at ____.

- A)** subduction zones
- B)** transform boundaries
- C)** convection currents
- D)** divergent boundaries

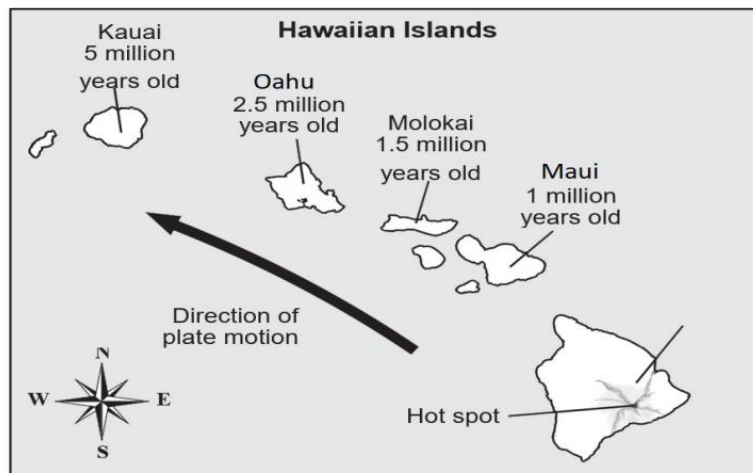
25-The Himalayan Mountain range of India was formed at a ____.

- A)** convergent boundary
- B)** divergent boundary
- C)** hot spot
- D)** transform boundary

26-Active volcanoes are most likely to form at ____.

- A) transform boundaries
- B) divergent boundaries
- C) the center of continents
- D) convergent oceanic–continental boundaries

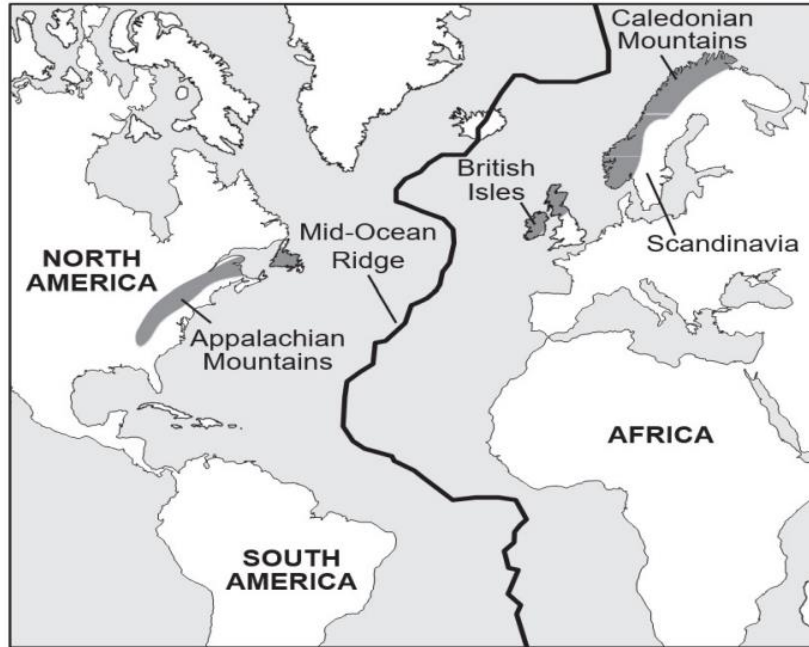
27-The map shows the ages of the Hawaiian Islands, a volcanic island arc located over a hot spot.



- a. Identify the data that can be used from this map to provide evidence of past plate movement. Explain why these data provide evidence of past plate movement.

b. Explain why the data from the Hawaiian Islands can be used to estimate the rate of plate movement at other locations in the Pacific Ocean.

28-The map shows the locations of the Appalachian Mountains of the United States and the Caledonian Mountains of northern Europe, including the British Isles. A scientist proposes that these two mountain ranges were once part of one landmass.



a-What additional evidence, not shown on the map, could support the scientist's theory that these mountains were once part of one landmass? Explain why this evidence supports the theory.

b. Explain the current theory for why these mountains separated. Identify another feature from the map that supports this theory.

29-This picture shows a rock formation, called a hoodoo, found in Arches National Park in Utah.



a-Describe how wind contributed to shaping this rock formation.

b-The rock at the top of the hoodoo is wider than the rock on the bottom and appears to have a smoother surface. Explain why the geologic processes that are responsible for shaping the hoodoo are affecting the rocks over different time scales.
