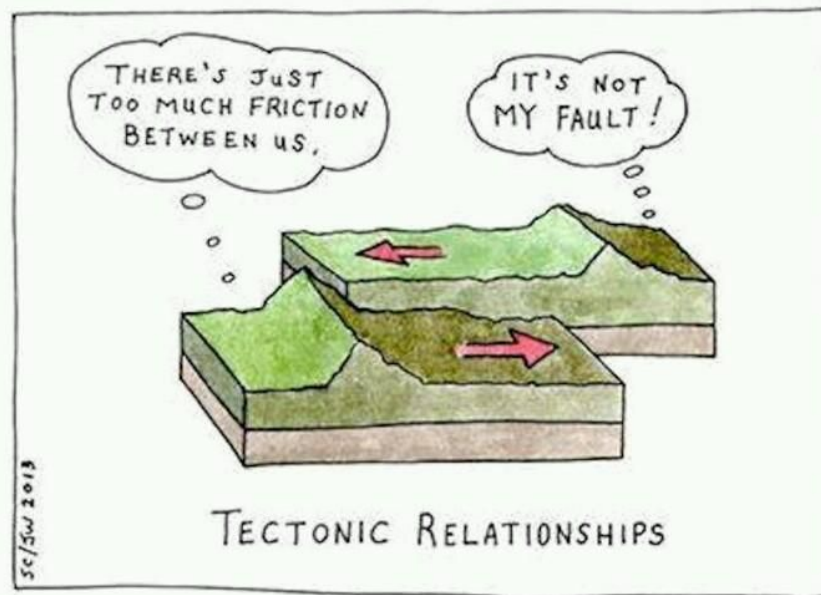


2018 Captains Tryouts: Dynamic Planet

~NCSSM, NC~



You Have 50 Minutes.

Good Luck! You Got This :)

School Name: _____

Team Number: _____

Competitors' Names: _____ & _____

1. Define sial and sima.
2. What is the driving force behind plate tectonics? Forces associated with what are most important?
3. What are the 6 stages of the Wilson Cycle and what occurs in each?
4. What are the 3 types of plate boundaries? Draw diagrams of each.
5. At what rate do plates move?

For 6-9, Match each of the following

- | | |
|---|---|
| <ol style="list-style-type: none"> 6. Back Arc Basin 7. Foreland Basin 8. Intermontane Basin 9. Rift Valley | <ol style="list-style-type: none"> A. Large mountain ranges (created by subduction (volcanic mountain ranges) or collisions (metamorphic mountain ranges) have depositional basins on both sides B. An alluvium-filled (deposit of clay, silt, sand, and gravel left by flowing streams in a river valley or delta) valley between mountain ranges, often formed over a graben C. First dominated by river systems: alluvial fans, river channels, floodplains, can become lake D. Sediment is poorly weathered and contains many black minerals and volcanic rock fragment |
|---|---|

10. What is Pangea and when did it exist?

11. Define the following:

- a. Triple junction
- b. Aulacogen
- c. Mantle Plumes
- d. Graben structures

12. Why is there an observed bend in hotspot tracks?

13. How many hot spots have been active within the past 10 million years?

14. What are the two types of body waves radiated by earthquakes? What are three differences between the two.

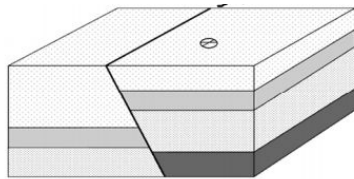
15. What magnitude earthquake did the Great 1960 Chilean tsunami generate?

16. What caused the largest landslide in recorded times?
17. What elements is magma usually made up of?
18. Which 5 major volcanoes is Hawaii constructed from?
19. What is the contractional hypothesis? Is it accepted today?
20. What is the geosynclinal theory of Dana?
21. Define and give an example of each of the following:
 - a. Hot Spots
 - b. Nematath

22. Who proposed the Theory of Continental Drift? What does this theory state?

23. Why does the sea floor have a striped pattern of magnetic anomalies that is symmetric with respect to the mid-ocean ridge?

24.



Assuming the strata have not been turned upside down, label the strata in age sequence, starting with 1 for oldest stratum. Label the strata on all faces of the block diagram and both sides of the fault. Also, when did the fault form?

25. What is the lithosphere and asthenosphere?

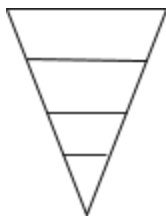
26. What is the difference between a passive and an active margin? Given an example of each.

27. What is the North American Craton?

28. Where is the Rocky Mountains located? During which mountain building event was it created? How long ago was that?

29. What is unusual about the Rocky Mountains and what is the most likely explanation?

30. How many years ago was the Appalachian Mountains created?



31.

Identify Earth's layers and write the thickness of each.