

Name: _____ Period: _____ Date: _____

Ms. Randall Marine Science

Continental Drift and Plate Tectonics Web quest

Part A: Continental Drift

Follow the links: Answer the following questions.

<http://www.enchantedlearning.com/subjects/dinosaurs/glossary/Contdrift.shtml>

<http://www.divediscover.who.edu/tectonics/pangea-animation.html>

<http://kids.britannica.com/comptons/art-182286/Biological-and-geological-similarities-between-continent-provide-evidence-of-continental>

<http://sciencelearn.org.nz/Contexts/Icy-Ecosystems/Science-Ideas-and-Concepts/Continental-drift>

1. What does the Theory of Continental Drift state?

2. What is the name of the scientist that proposed the Theory of Continental Drift?

3. What was Pangaea?

4. What are the names of the two continents that Pangaea separated into?

5. How do the continental coastlines support the Theory of Continental Drift (Pangaea Theory)?

6. Explain how fossil distribution supports the Theory of Continental drift.

7. What other evidence supports the Theory of Continental Drift?

Part B: Convection Current

Follow the links: Answer the following questions.

<https://www.khanacademy.org/partner-content/amnh/earthquakes-and-volcanoes/plate-tectonics/a/plates-on-the-move>

8. What are convection currents?

9. In which of Earth's layers do convection currents happen?

10. When convection currents flow in the mantle, they also move the _____.

Part C: Plate Tectonics

Watch this: <http://oceanexplorer.noaa.gov/edu/learning/player/lesson01.html>

Follow the links: Answer the following questions

<http://pubs.usgs.gov/gip/dynamic/dynamic.html>

11. What is a “plate” in geological terms?

12. What does the Theory of Plate Tectonics state?

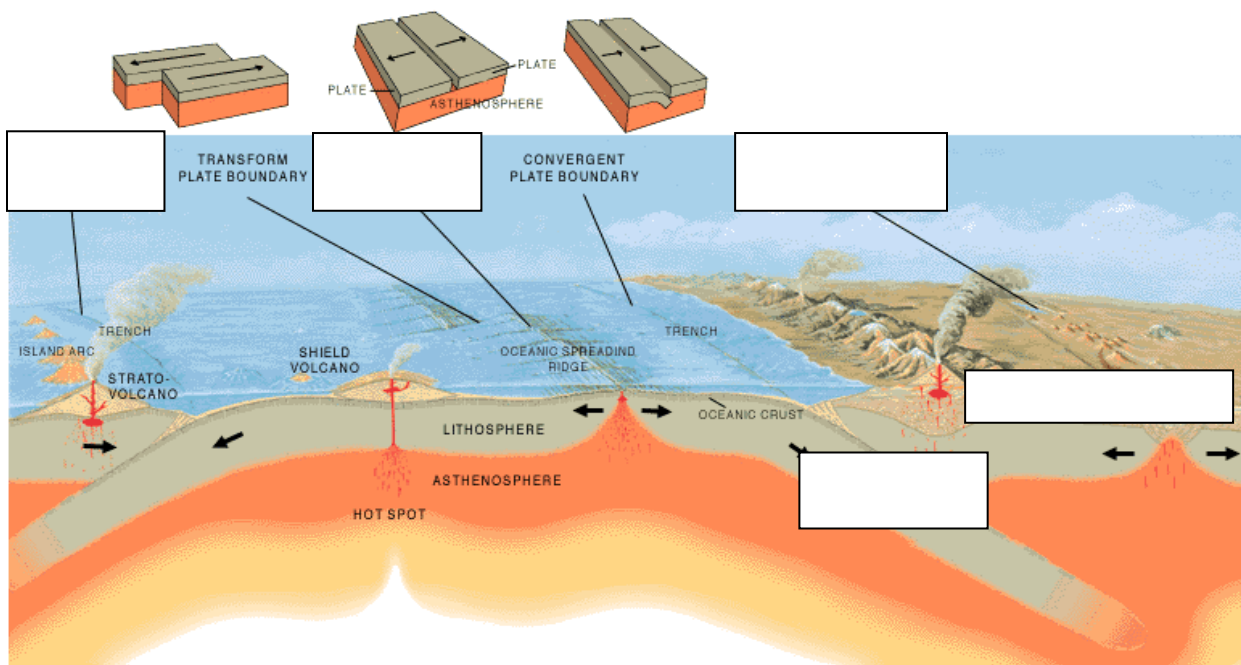
13. What is the name of the theory that led to the development of the Theory of Plate Tectonics?

Click the back arrow of Internet Explorer to return to the homepage of

<http://pubs.usgs.gov/gip/dynamic/dynamic.html>. Click on the “[Understanding Plate Motions](#)” icon on this website.

14. What are the four types of plate boundaries?

15. Click on Illustration of the Main [Types of Plate Boundaries](#) and label the diagram. 17-21



Part D: Plate Tectonics: Types of Boundaries: Divergent boundaries

Click the back arrow once on the Internet Explorer screen to move back one page. Scroll down to [Divergent Boundaries](#).

Finish the following sentence:

16. Divergent boundaries occur along spreading centers where

_____ are moving _____ and new crust is created by _____ pushing up from the _____.

Click on the link: [Mid-Atlantic Ridge](#)

17. What is shown in this picture?

18. What type of plate boundary is it?

19. Where is it located?

Part E: Plate Tectonics: Types of Boundaries: Convergent Boundaries

Scroll down to: [Convergent Boundaries](#).

20. What is the location where sinking of a plate occurs called?

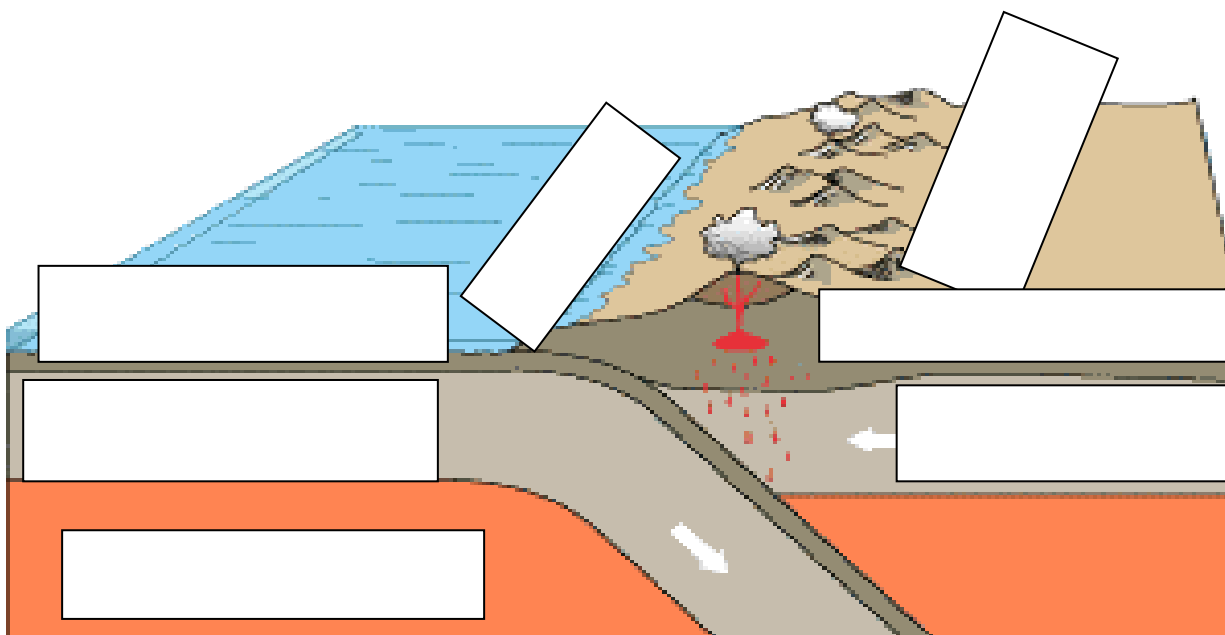
21. The type of convergence -- called by some a very slow "collision" -- that takes place between plates depends on the kind of lithosphere involved. Convergence can occur between what types of plates?

- a.
- b.
- c.

Scroll down to: [Oceanic-continental convergence](#)

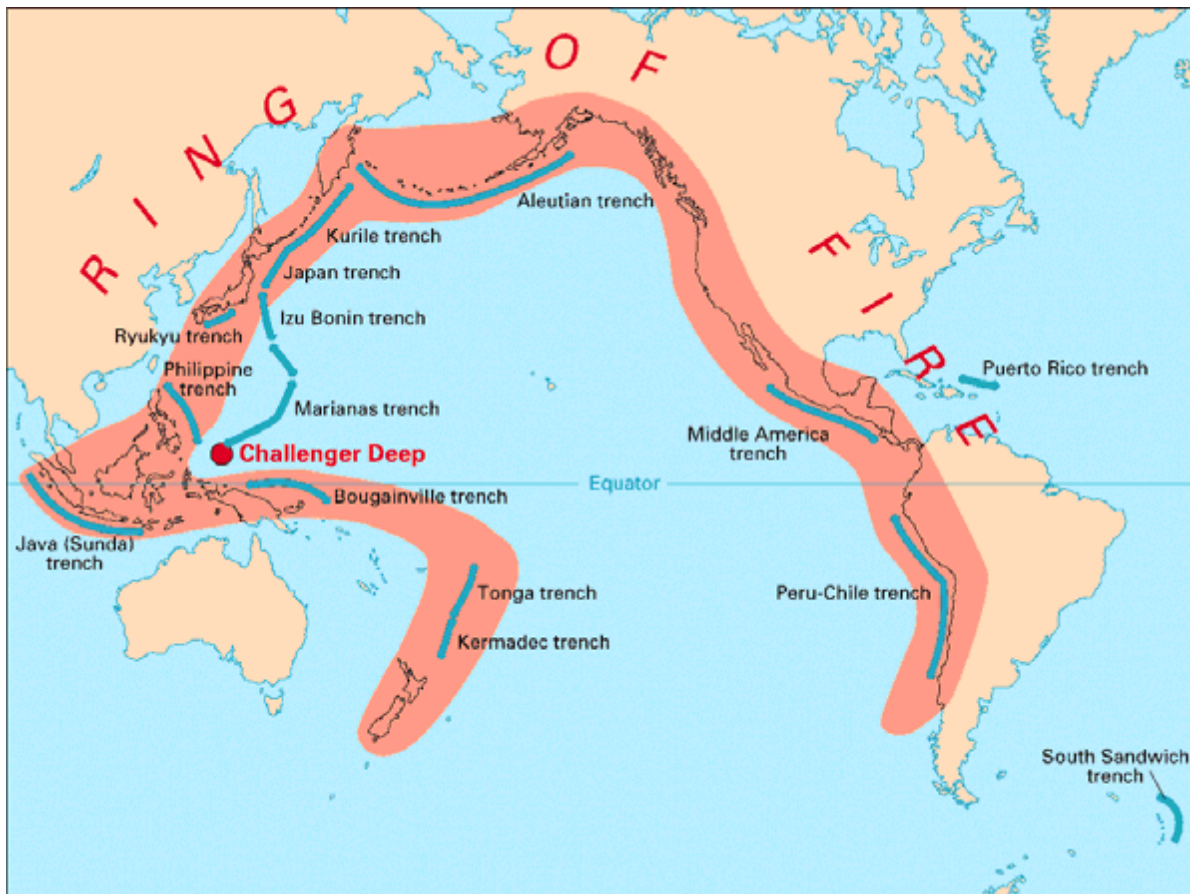
22. Off the coast of South America along the Peru-Chile trench, the oceanic Nazca Plate is pushing into and being subducted under the continental part of the South American Plate creating what?

Look at the diagram under the Oceanic-continental convergence information: Label the following diagram.



Oceanic-continental convergence

Click on the [Ring of Fire](#)



23. What is the ring of fire?

24. The Ring of fire results in frequent what?

25. The West coast of the United States has frequent volcanoes, use the ring of fire to explain why.

Scroll down to [Oceanic-Oceanic convergence](#)

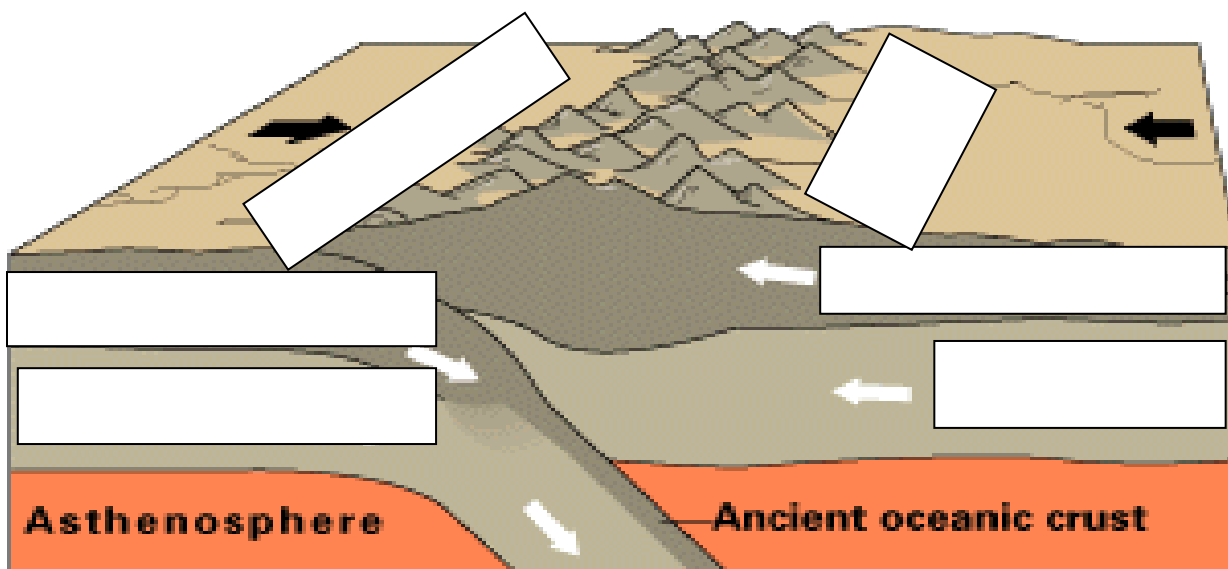
26. When two oceanic plates converge, one is usually subducted under the other what is formed?

Scroll down to: [Continental-continental convergence](#)

27. What mountain range demonstrates one of the most visible and spectacular consequences of plate tectonics?

28. What happens when two continents meet head-on, meet head-on and neither is subducted?

Look at the diagram under the Continental-continental information: Label diagram.



Continental-continental convergence

Part F: Plate Tectonics: Types of Boundaries: Transform Boundary

Scroll down to: [Transform Boundaries:](#)

48. The zone between two plates sliding horizontally past one another is called a transform-fault boundary, or simply a _____
_____.

Click on the diagram San Andreas fault:

49. The picture is an aerial view of what?

50. Make three observations about the picture

51. What type of boundary does it result from?