

Plate Tectonics Virtual Lab

Directions

1. Go to the following website:
<http://www.learner.org/interactives/dynamicearth/index.html>
2. Follow the directions on the screen and answer the following questions. Pay attention and complete each activity. You will be taking a test at the end of the lab.
3. **Write answers on your own paper to turn in.**

Questions

1. Scientists used what to figure out the interior of the Earth?

Use the diagram of the Earth's interior to answer the following

2. This layer is made up of the crust and a tiny bit of the upper mantle. It is divided into several constantly moving plates.
3. The plates move on this hot, malleable semi-liquid zone.
4. The only liquid layer.
5. Extremely hot, solid sphere of iron and nickel.
6. Hard and rigid layer, it's the Earth's outermost and thinnest layer.

Go to the next chapter: Plate Tectonics

7. The picture on the left is approximately how many years old?
8. In the early 1900's what was the name of the scientist that noticed the coastlines matched up?
9. What were two other evidences of his theory?
10. What was the name he called it?
11. About 200 million years ago, what was the names given to the two major land masses?
12. The modern theory _____ became widely accepted in the 1960's and states that the Earth's layer, or _____ is broken up into several large slabs known as _____.

Go to the next chapter: Continents Over Time

13. Describe the Earth as it might appear 250 million years from now.

Go to the next chapter: Plates and Boundaries

14. The type of crust that lies under a continent is called?
15. The type of crust that lies under an ocean is called?
16. Which type of plate is older and thicker?
17. A boundary that is moving towards each other is known as? (draw a picture)

18. A boundary that is moving away from each other is known as? (draw a picture)
19. A boundary that is sliding past each other is known as? (draw a picture)
20. List two locations where each boundary is occurring

Divergent

Convergent

Transform

Location 1

Location 2

21. Using the map of boundaries, can you see a pattern of where the boundaries are occurring? If so, describe it.
22. How many plates did you correctly identify?
23. How many boundaries did you correctly identify?

Click on the next chapter: Slip, Slide and Collide

24. There are five pictures showing different natural disasters in our history. Can you identify which picture belongs what events in history?

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

25. At some convergent boundaries, oceanic plate collides with a continental plate. Which plate is thinner and more dense?
26. Describe what happens to this plate? What is this called?
27. What forms at this plate?
28. Earthquakes can also occur at subduction zones, which can cause what?
29. What occurs when two continental plates collide?
30. Where is an example of this?
31. How much do they continue to grow per year?
32. In divergent boundaries, what forms when two oceanic plates move apart?
33. What forms when two continental plates pull apart?
34. Transform boundaries grind past each other horizontally and results in a _____, a crack or fracture in the crust.
35. What usually results at transform boundaries?
36. A transform boundary is also called a _____.
37. The best studied fault is the -_____.
38. What is happening in case 1?
39. What is happening in case 2?
40. What is happening in case 3?
41. What are the four word scrambles?

Take the assessment and print off your results and turn in to the teacher.

(You may use this sheet to help you answer the questions.)