INTERACTIVES: DYNAMIC EARTH
Read each question and follow the directions. Write your answers directly on this page.

1. Go to the following website to complete an online interactive to learn about plate tectonics: [http://www.learner.org/interactives/dynamicearth/index.html](http://www.learner.org/interactives/dynamicearth/index.html)
   Read the introduction and then click on the link to “start your exploration”!

2. List the three distinct layers of the earth:
   ______________________  ______________________  ______________________

3. Label the layers of the earth:

   [Blank diagram with labels to be filled in]

4. Roll your mouse over the labels to answer the following questions:

   A. What is the consistency of the crust? How thick is it?

   B. What is the mantle made of?

   C. What is the outer core made of – both consistency and composition?

   D. What is the inner core made of – both consistency and composition?

   E. What is the lithosphere?
F. What is the asthenosphere?

5. Describe what the continents on the Earth looked like 250 million years ago?

6. Answer the following questions after reading the Plate Tectonics page:
   A. Who was the German scientist that came up with the idea of continental drift?
   B. What was some evidence he used to support his idea?
   C. What did he name the “supercontinent” that formed when all the landmasses combined?
   D. Explain the Theory of Plate Tectonics.

7. Plate the Plate Tectonics game until you get the right answer.

8. What might the Earth look like 250 million years from now? What has this landmass already been named?

9. How is oceanic crust different from continental crust?

10. The border between two tectonic plate is called a _________________________________.
11. Fill in the following chart

<table>
<thead>
<tr>
<th>What is it?</th>
<th>Convergent boundary</th>
<th>Divergent boundary</th>
<th>Transform boundary</th>
</tr>
</thead>
</table>

| List a geographic example | | | |

12. Use the map to find examples of different plate boundaries around the world.

13. Play the *Plates and Boundaries Challenge*!
   
   A. How many plates did you correctly place: __________
   
   B. What was your final score? __________

14. Read the “Slip, Slide and Collide” introduction and continue.

15. Define the following terms:
   
   A. Subduction zone:

   B. Trench:

   C. Magma:

16. What type of geologic formation is created when oceanic crust subducts under continental crust?

17. What is formed when two ocean plate collide?

18. What happens when two continental plates collide? Give a geographic example.
19. What do mid-ocean ridges have to do with seafloor spreading?

20. Explain how a rift forms.

21. What kind of geologic structure forms at a transform boundary? Explain what that structure is.

22. The structure from question #21 has a more specific name at transform boundaries. What is that name?

A famous example is located in California. What is the name of that famous example?

23. Play the “Plate Interactions Challenge”! What was your final score? __________

24. Test your skills! Answer the 30 question assessment at the end of the online interactive.

Once finished, show your teacher your final score and write it here: __________

If you can’t show your teacher your score in person, print out a copy of the page.

If you can’t print out a page, take a ‘screen shot’ and email the image to your teacher. Your name, date and final score must be on this screen shot.