

# Dynamic Earth

## Interactive Lesson - Part 2

Student  
Name:

8th Grade Science Standards Covered:

**ESS2.5** Construct a scientific explanation using data that explains the gradual processes of plate tectonics accounting for A) the distribution of fossils on different continents, B) the occurrence of earthquakes, and C) continental and ocean floor features (including mountains, volcanoes, faults, and trenches).

**ESS2.4** Gather and evaluate evidence that energy from the earth's interior drives convection cycles within the asthenosphere which create change in the lithosphere including plate movements, plate boundaries, and sea-floor spreading.

### Student Directions:

Pick up where you left off on Part 1 of this lesson at the Dynamic Earth Interactive site at <https://www.learner.org/series/interactive-dynamic-earth/>

#### Start on the "Plates and Boundaries" Page:

- After reading this page, click the link to do the "Plates and Boundaries Challenge" and answer the following questions about your progress in the activity:
  - How many tectonic plate names were you able to correctly identify? \_\_\_\_\_
  - What did you score on the part where you identified the type of boundary? \_\_\_\_\_

#### "Slip, Slide, & Collide" Page:

- Read through all the information on the page, then click the link to "See what happens at different plate boundaries." Read through the information and click the interactive terms to answer the following questions:
  1. Name 2 types of geographic features that are created above a subduction zone: \_\_\_\_\_  
\_\_\_\_\_
  2. What is the geographic definition of a volcano? \_\_\_\_\_
  3. Describe what happens to both tectonic plates at a subduction zone: \_\_\_\_\_  
\_\_\_\_\_
  4. Explain how a convergent boundary can create mountains: \_\_\_\_\_  
\_\_\_\_\_
  5. What is a "rift valley" and where/how does it form? \_\_\_\_\_  
\_\_\_\_\_
  6. What major geological event happens most often at transform boundaries? \_\_\_\_\_
- Click the link to do the "Plate Interactions Challenge."
  - How many points (out of a possible 10) did you score? \_\_\_\_\_
- Click the link to move on to the "Test your skills" section

#### "Test Skills" Page:

- Take the 30-question test and record your score here: \_\_\_\_\_
  - *\*HINT: It's OK to open the Dynamic Earth website in a second tab and take the test as "open-notes" if you need to.*