

CGC1P

Plate Tectonics Dynamic Earth

<http://www.learner.org/interactives/dynamicearth/index.html>

The study of plate tectonics helps us understand why the earth's continents and oceans are shaped the way they are. It also helps us understand the complex processes that move tectonic plates around the earth, what causes earthquakes and how volcanoes are formed. It can also help us understand how the landscape of Canada has evolved over millions of years.

Task: Your task is to navigate through the Dynamic Earth website and answer the questions on this worksheet. You are also required to complete the 'Test Skills' section once all questions are completed.

*** Hand in this question sheet and your results from the 'Test Skills' section ***

PART A – The Earth's Structure

- Click on the 'Start your exploration with the Earth's Structure' link

1. What layer is the only liquid layer of the earth? _____

2. What layer of the earth holds the continents and oceans? _____ 3.

What is the thinnest layer of the earth? _____

4. What layer lies between the lithosphere and the mantle? _____

- Click on the 'Next Chapter: Plate Tectonics' link

PART B – Plate Tectonics

1. What 2 major land masses formed when Pangaea began to break up 200 million years ago?

2. When did North America begin to separate from Eurasia? _____

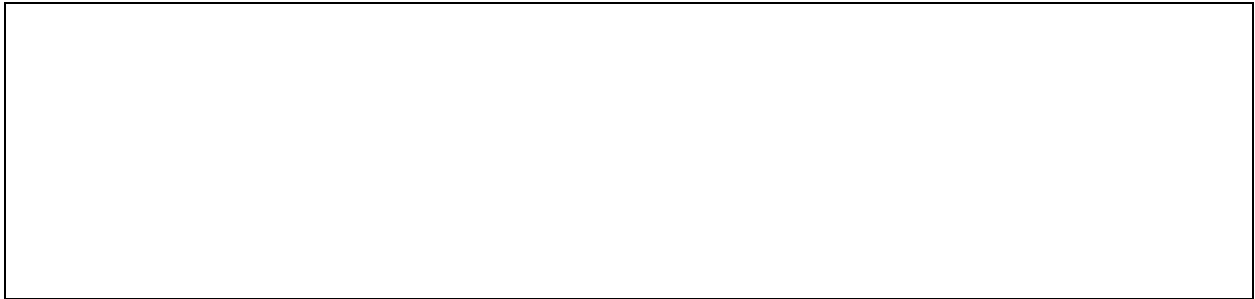
- Click on the 'Continents over time' link

3. What is 'Pangaea Ultima'? _____

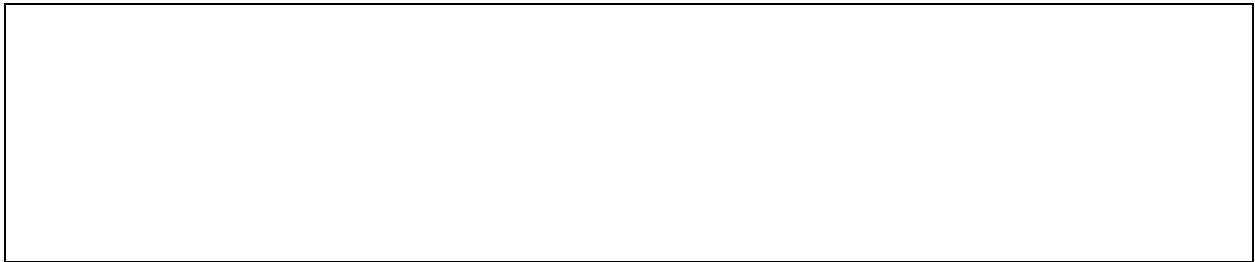
PART C – Plate Boundaries

3. In the chart below, draw a sketch of each type of plate boundary:

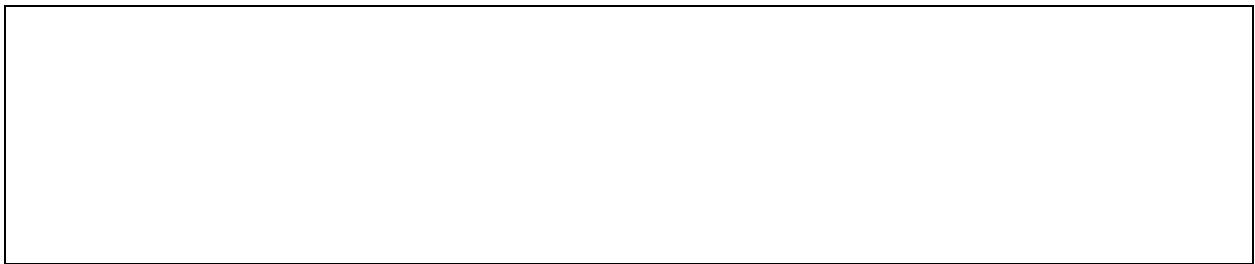
Convergent Boundary (Mr. Rathwell's car accident)



Divergent Boundary (moving apart)



Transform Boundary (Sliding Past)



PART D – Slide, Slip and Collide

Convergent Boundaries — Colliding Plates

1. In your own words, describe how volcanoes are formed. Use the following terms in your answer – subduction, vent, and magma.

2. What are island arcs? How are they formed?

3. What is a tsunami? What can cause a tsunami?

4. How much do the Himalayas 'grow' each year? _____

Divergent Boundaries – Spreading Plates

5. What is a mid-ocean ridge?

6. What is a rift?

Transform Boundaries – Grinding Plates

7. Explain how earthquakes are formed between transform boundaries.

PART E – Test Skills

1. Take the final test – 30 multiple choice questions. When completed, print out your results and hand them in. What is your score: record it here _____ (Show Mr. Rathwell)

