

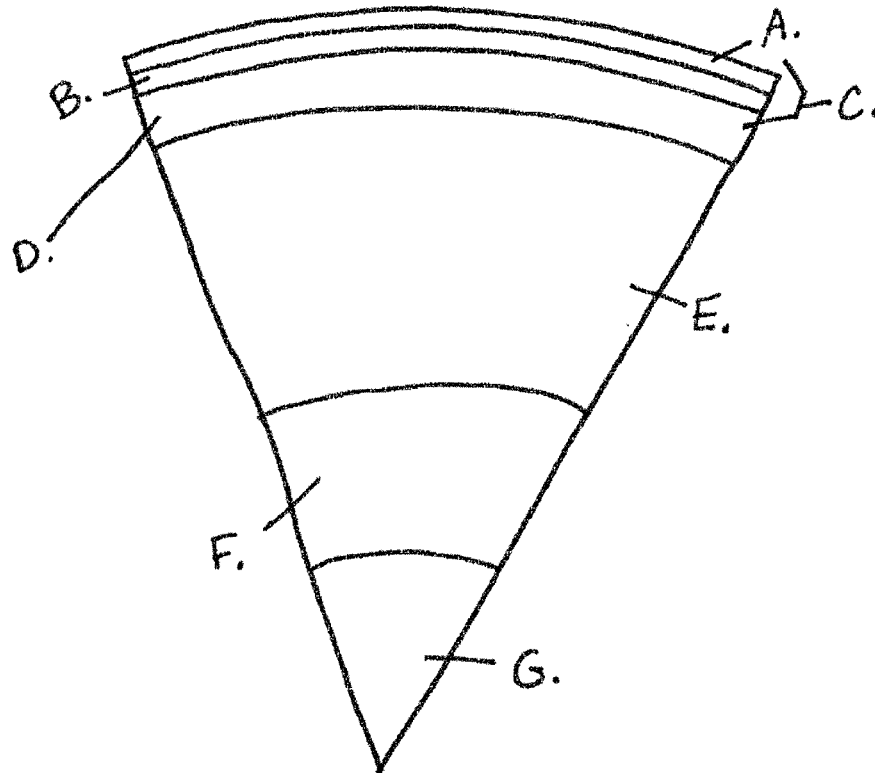


PLATE TECTONICS STUDY GUIDE



Write out your answers for each of these questions to check for your understanding of this content.

- Be able to label a cross-section of the Earth, showing its main layers: crust, upper mantle, lithosphere, asthenosphere, lower mantle, outer core, and inner core.



- Describe characteristics of each layer (ex. consistency, temperature, materials it is made out of...)
 - Focus on Inner core
 - Temperature:
 - Solid or Liquid?
 - Material it is made out of:
 - Lower Mantle –

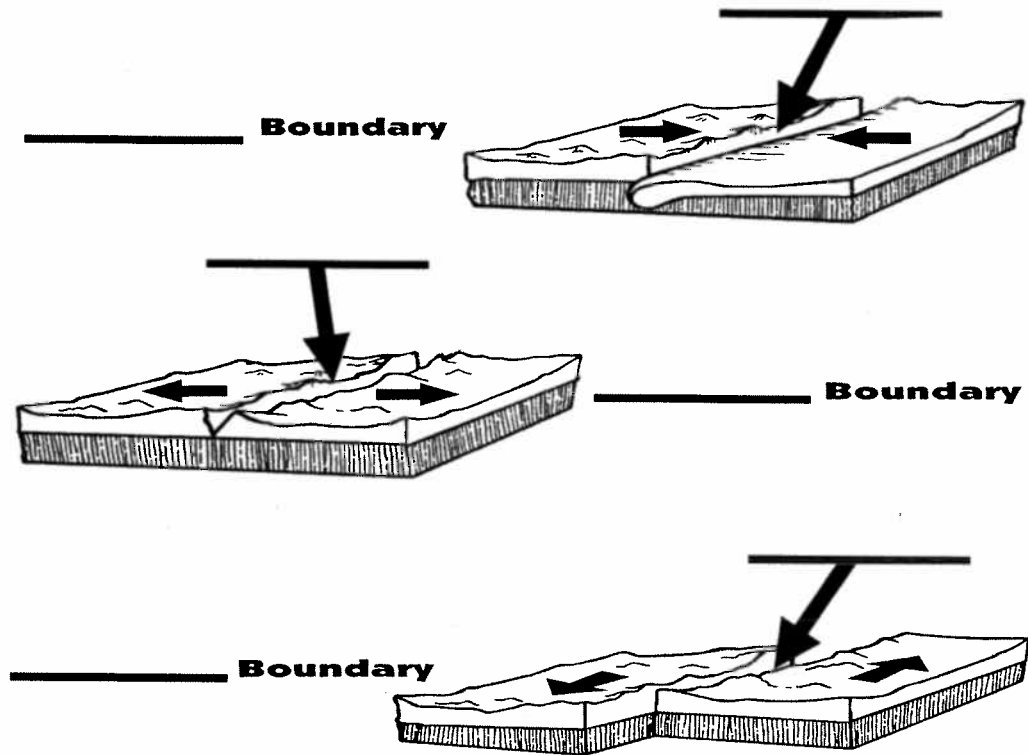
- Consistency of the Lithosphere (Crust and Upper Mantle) –
- Consistency of the Asthenosphere –

Boundary Definitions

1.) Please write out the definitions of the following boundaries, including where it can take place and what is formed from the interactions.

Type of Boundary	Draw arrows showing direction of plate movement	What Could Be Formed? (earthquake, volcano, mountain, trench, rift)
Divergent Boundary		
Convergent Boundary		
Transform Boundary		

- Label the three main types of plate boundaries (Convergent, Divergent, and Transform), and the following terms: rift, trench, and earthquake in the study prints below.



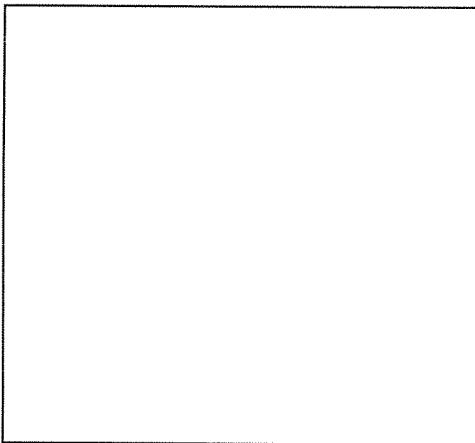
- Give at least three pieces of evidence that prove the continents used to be one large, single continent. You cannot use fossils as more than one bullet point.
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- What is the name of the scientist that originally came up with the theory of plate tectonics?
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- What was the name the “supercontinent” that could have existed 250 million years ago?

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- Describe the theory of continental drift.

- Draw and explain the idea behind convection cells/currents in the Earth’s mantle (remember the oatmeal demonstration?)



- Be able to describe how the plates/continents are able to move.

- They are able to move because

- Know how much (on average) a lithospheric plates will move per year.

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- Know what the word tsunami means.
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- Know what happened on December 26, 2004, and be able to explain what caused the deadly tsunami in the Indian Ocean.



- Be able to recognize the difference between a physical model and a conceptual model.
 - Physical Model –
 - Conceptual Model –
- Know why the continental crust doesn't subduct beneath the mantle.
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