

EARTH STRUCTURE NOTES

Essential Questions:

1. How do internal and external forces change, create, and shape landforms?
2. What affect do these changes have on the human population?

How to Write notes in Outline Form

- The **TOPIC** will be a roman numeral: I (1), II (2), III (3), IV (4).
- Each **MAIN IDEA** will be a letter under the Topic.
- Each **DETAIL** will be a number under the Main Idea.

EXAMPLE



I. Structure of the Earth **TOPIC**

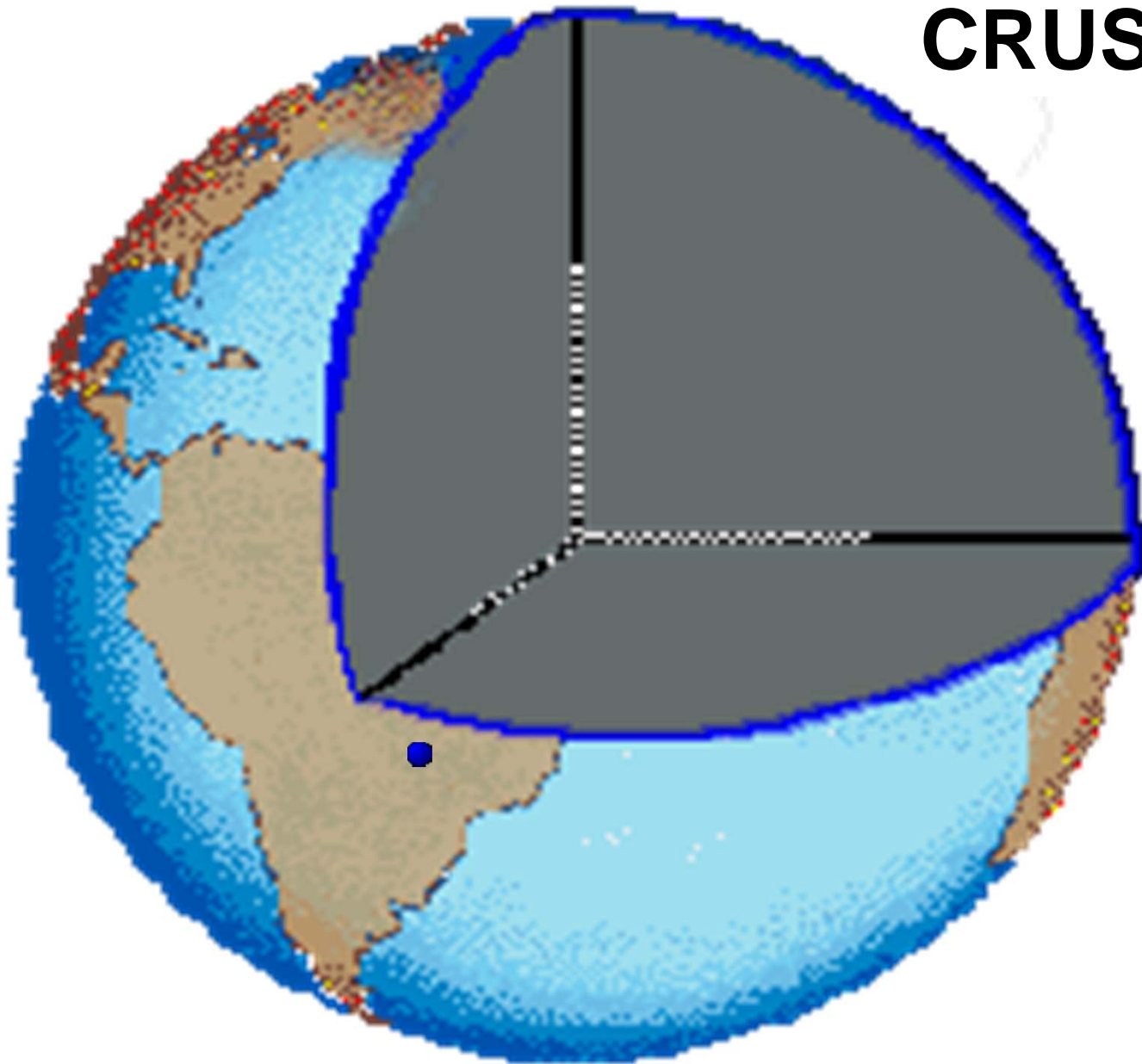
A. Crust **MAIN IDEA**

1. thin rock layer making up the earth's surface **DETAIL**
2. relatively light and brittle **DETAIL**
3. where most earthquakes happen **DETAIL**

I. STRUCTURE OF THE EARTH

- **Crust**
- **Mantle**
- **Core**
- **Continental Drift**

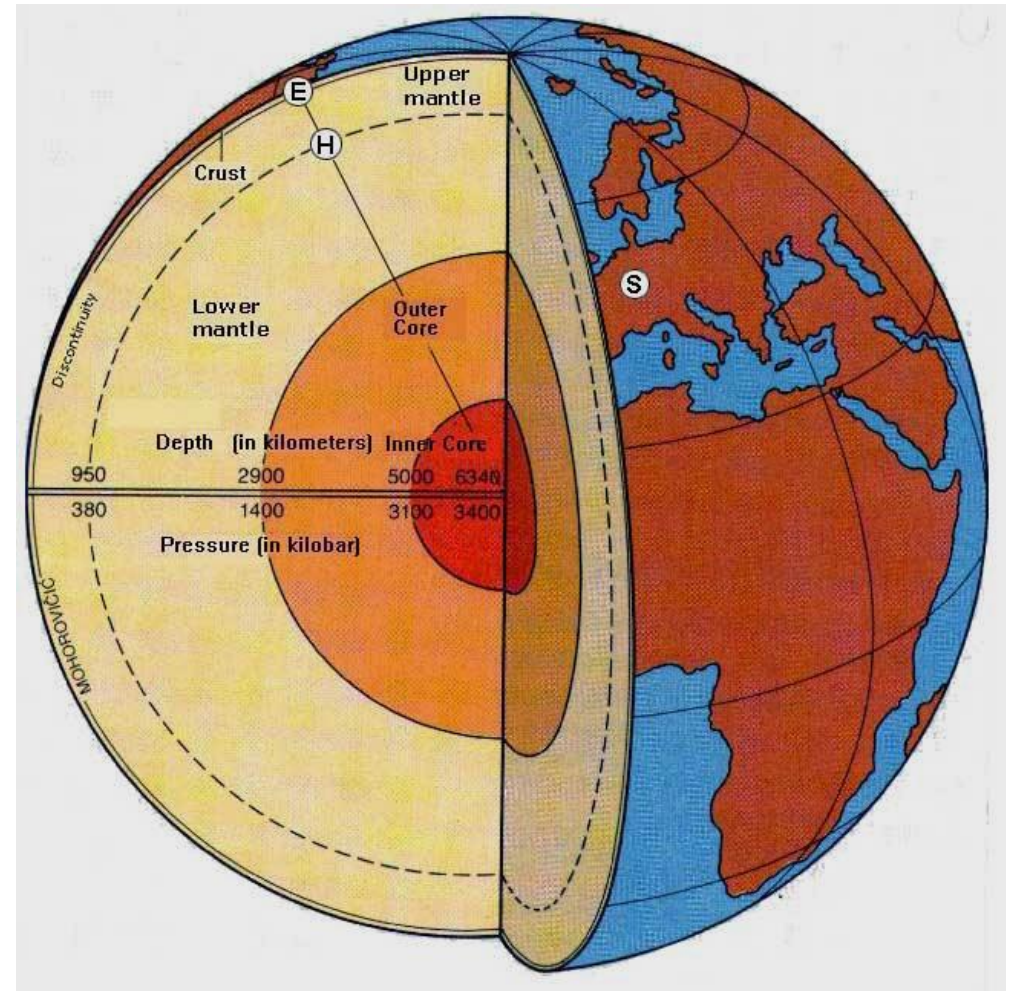
CRUST

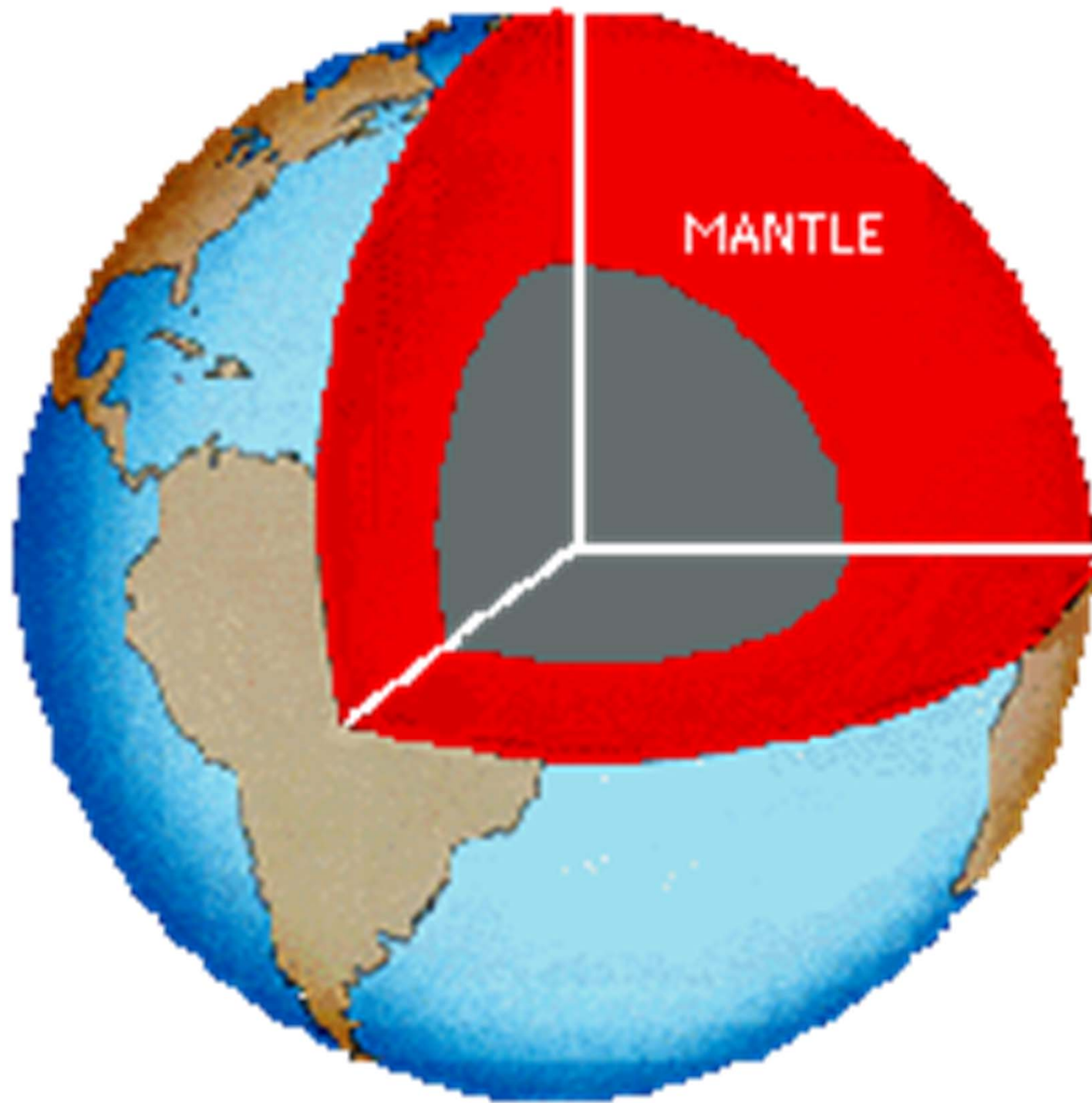


A. CRUST!

Aka: lithosphere

1. The thin rock layer making up the earth's surface.
2. The crust is relatively light and brittle.
3. Most earthquakes occur in the crust.

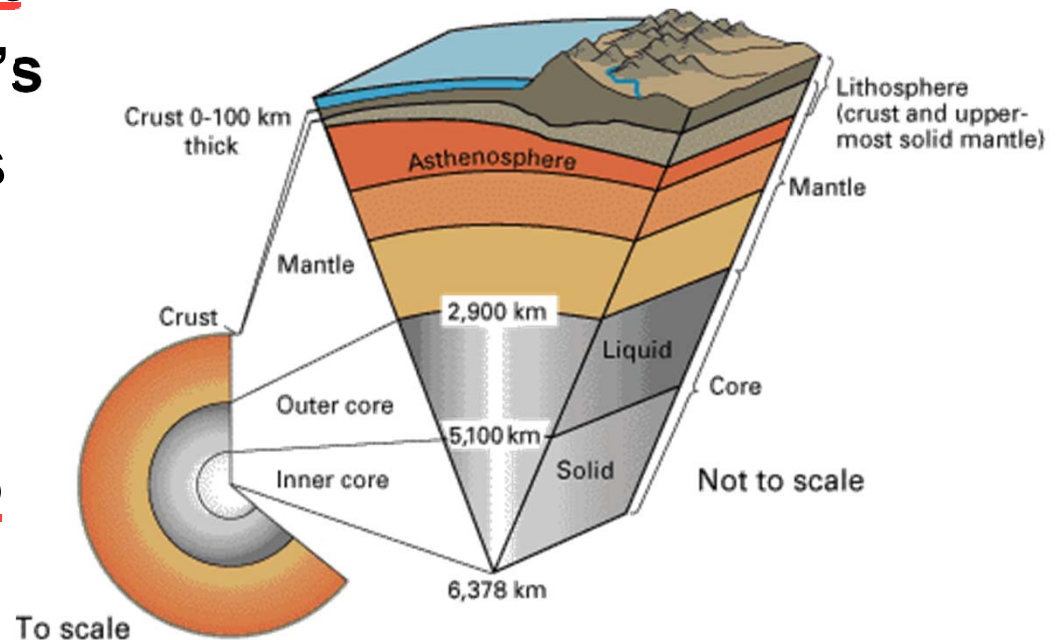


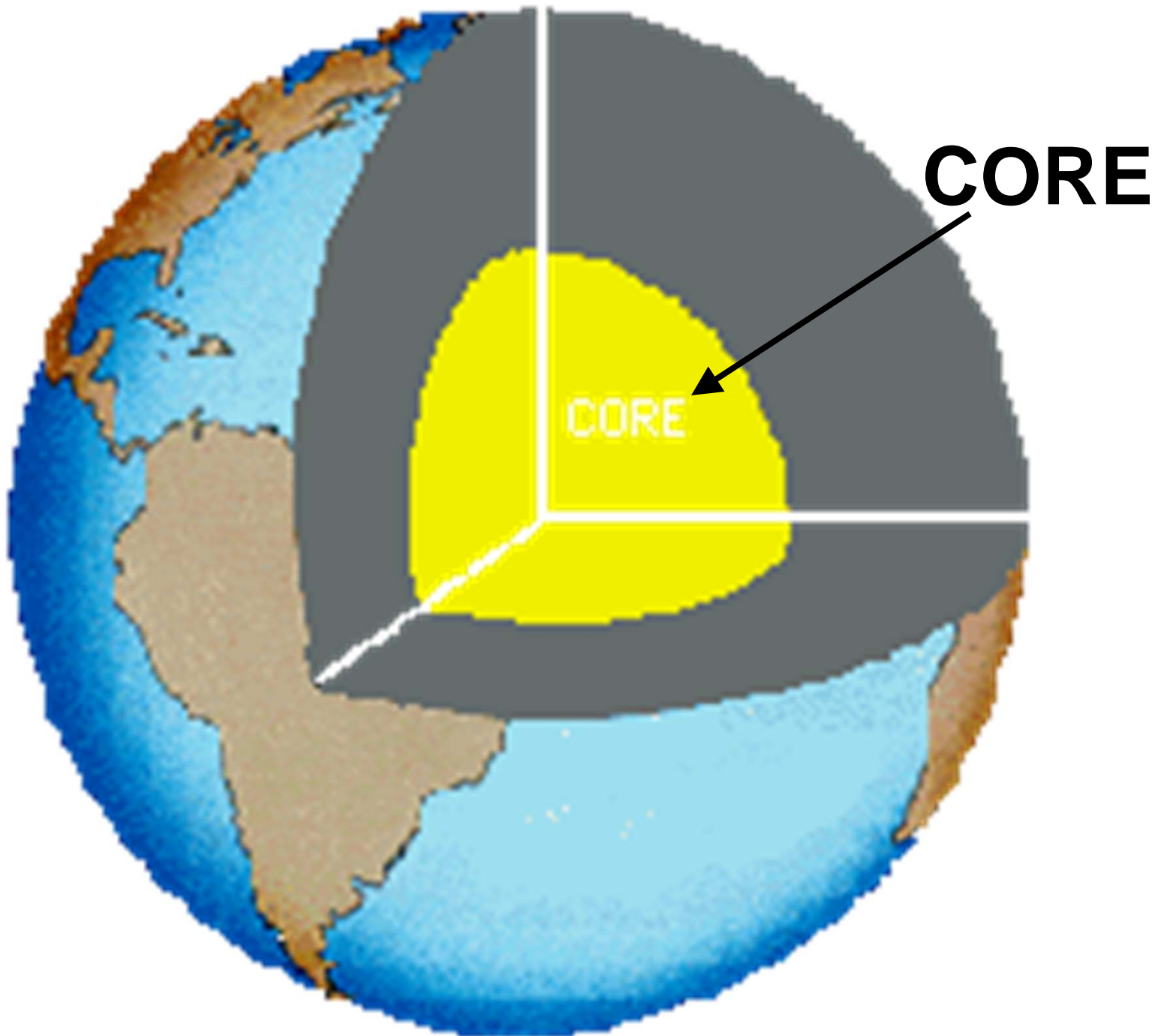


B. MANTLE!

1. A rock layer about 1.800 miles thick that is between the earth's crust and the earth's core.

2. The mantle is relatively flexible, so it flows instead of fracturing.





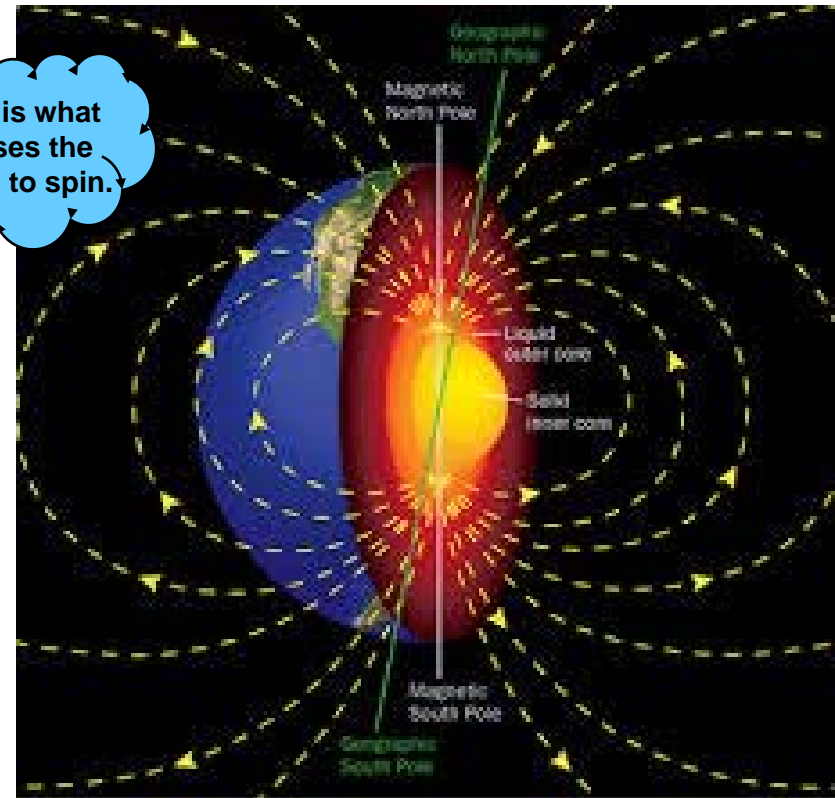
CORE

CORE

C. CORE!

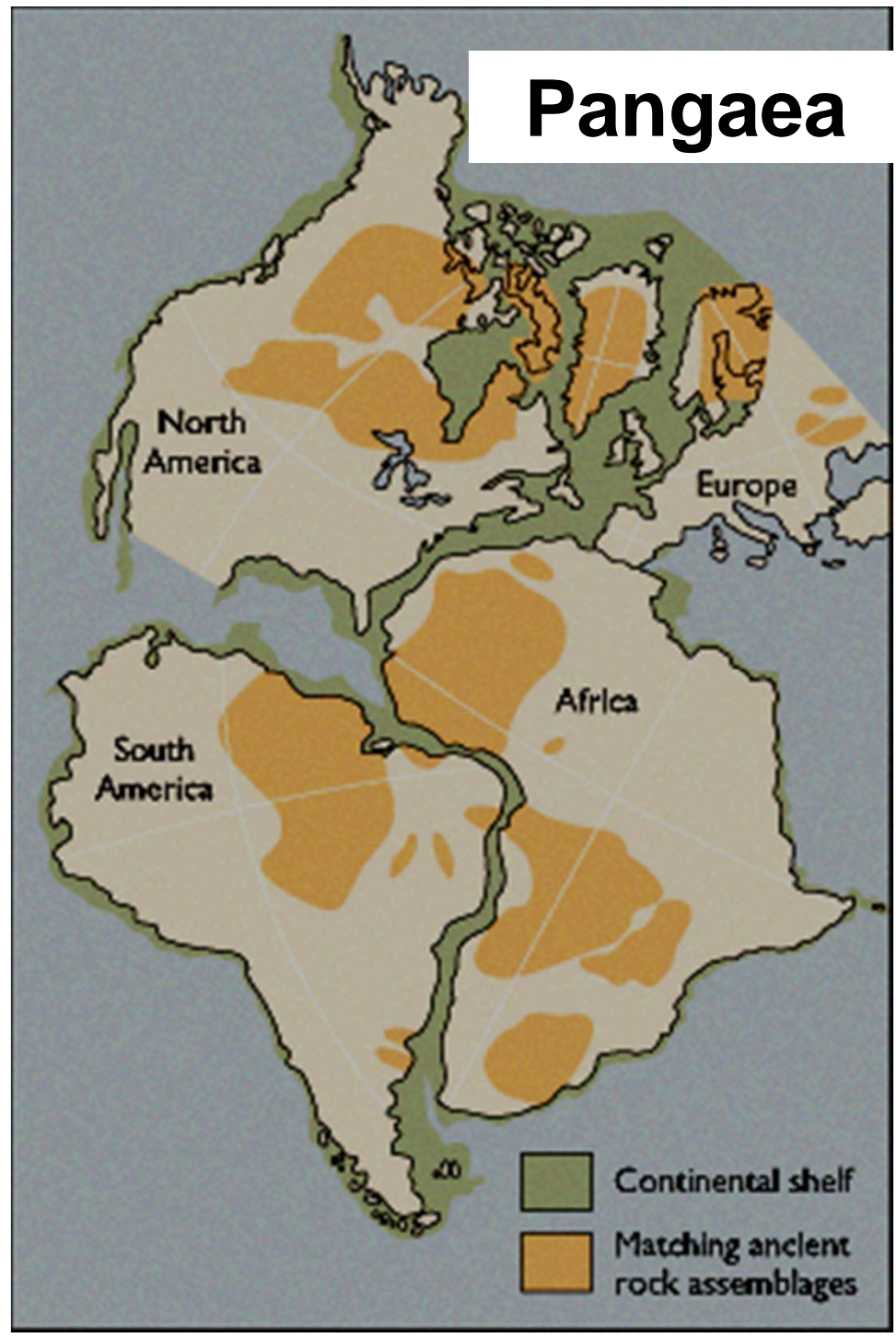
1. The earth's center, made up of iron and nickel.
2. The inner core is solid, the outer core is liquid:
3. Because the outer core contains iron, when it flows it generates the earth's magnetic field.

This is what causes the earth to spin.



D. Continental Drift

1. Hypothesis that all continents were once joined into a supercontinent
2. Supercontinent split apart over millions of years
3. Continues to separate today.

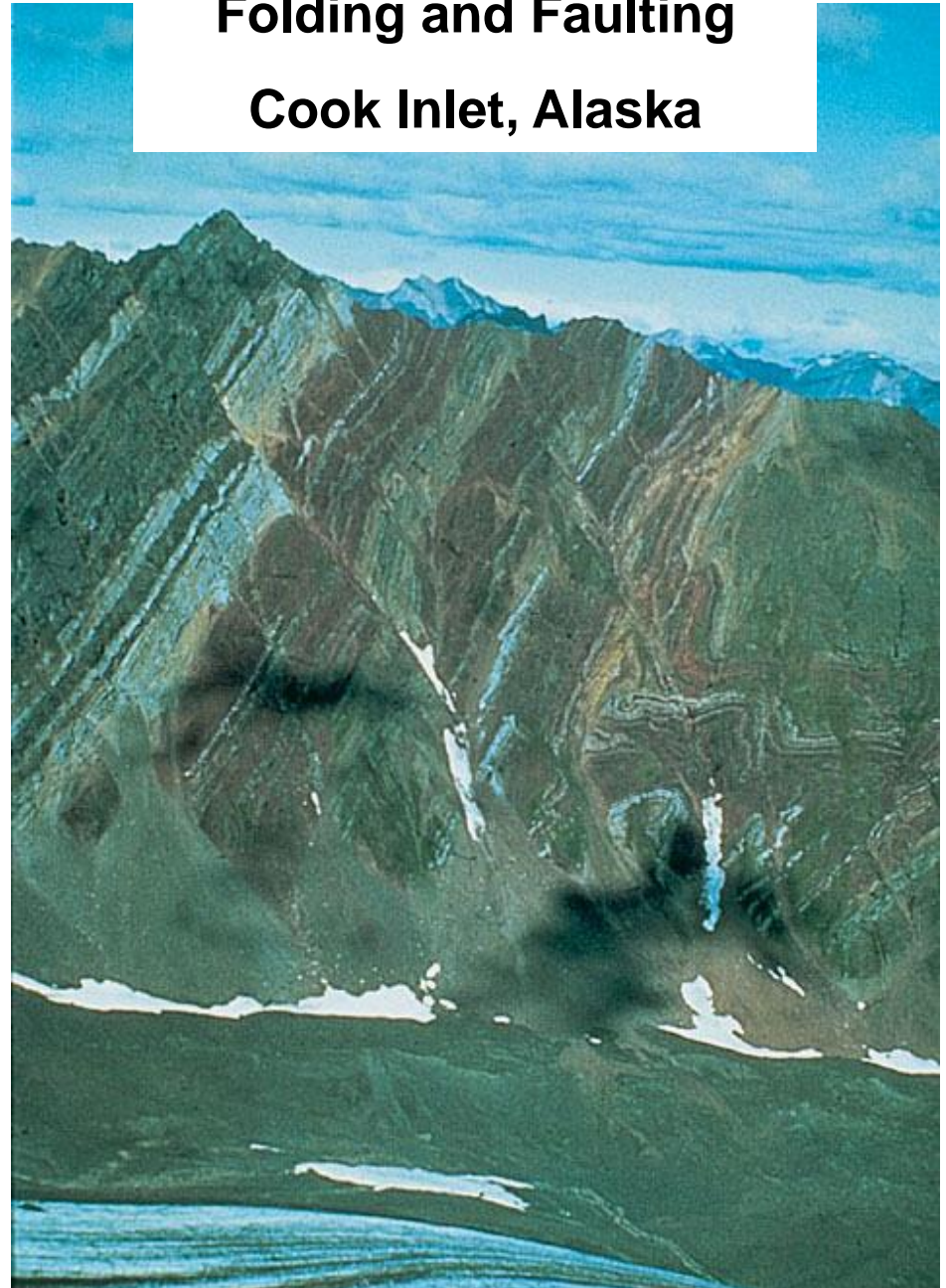


II. TECTONIC PLATES

A. Moving Shelves

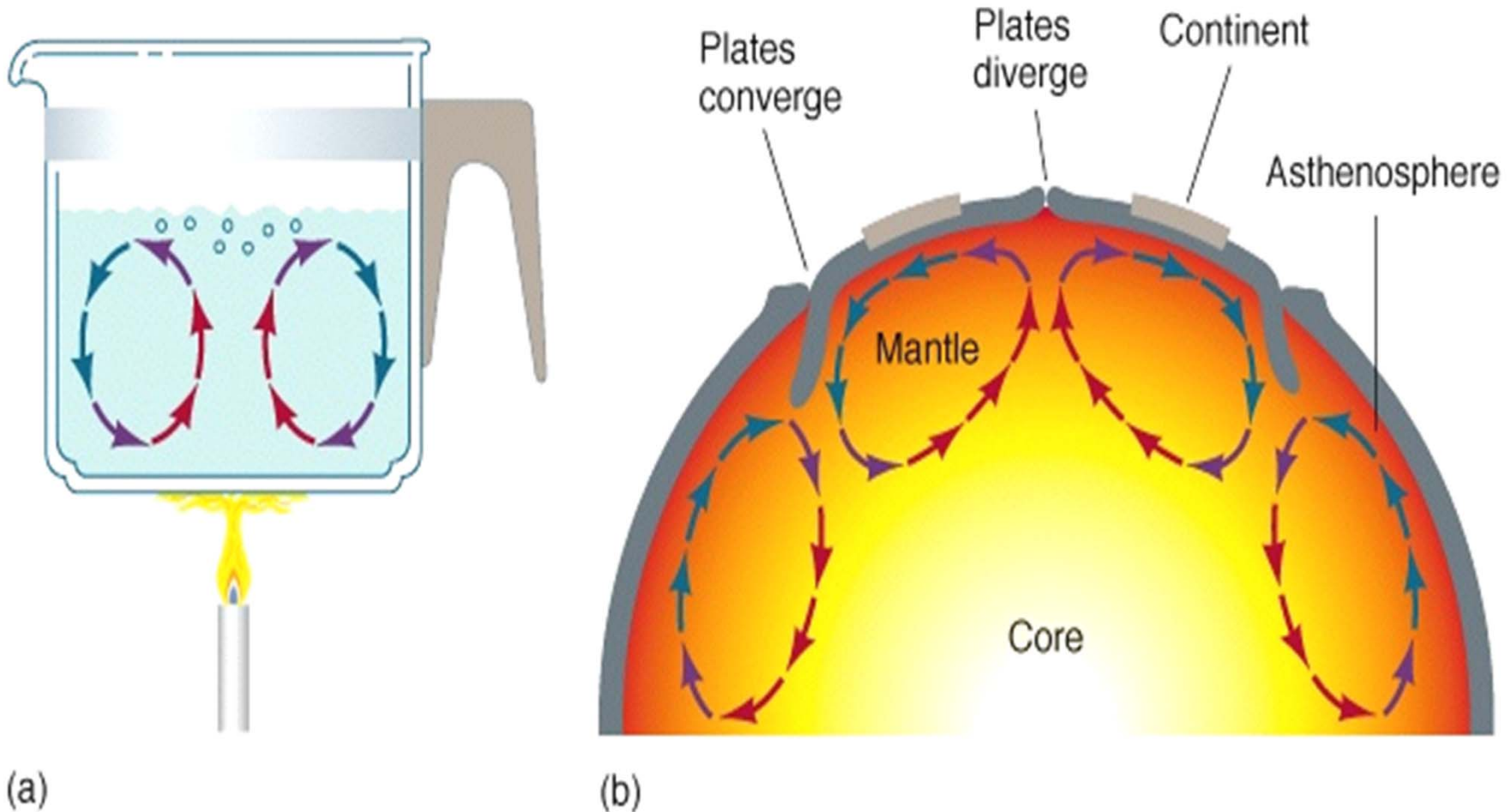
1. Form the earth's crust
2. *Fault*- break in the crust
3. *Fold*- fold in the crust

Folding and Faulting
Cook Inlet, Alaska



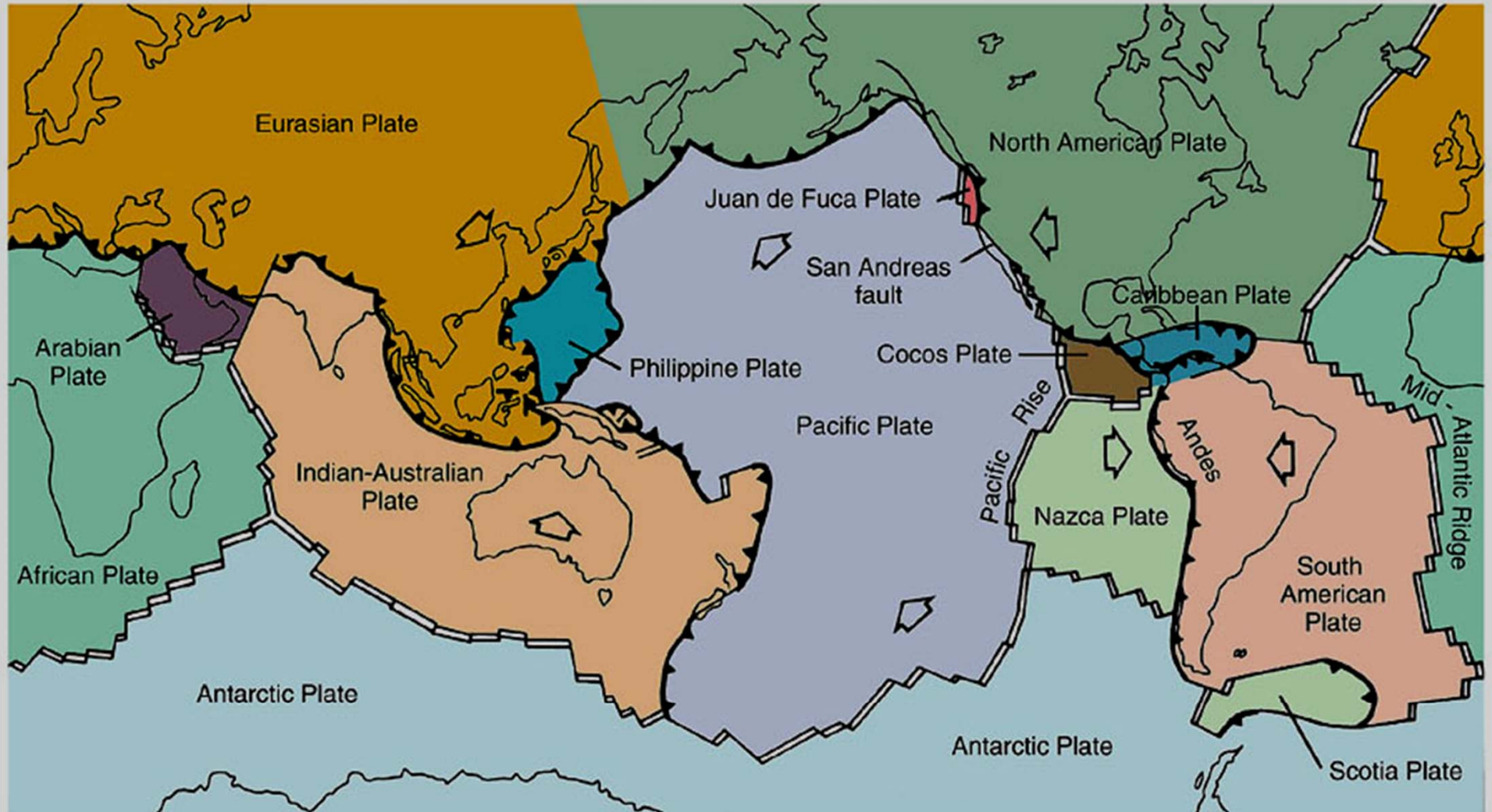
B. Convection- heat from the earth's interior makes the plates move.

*****THIS CAUSES EARTHQUAKES!*****






World Lithospheric Plates

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 Direction of plate motion

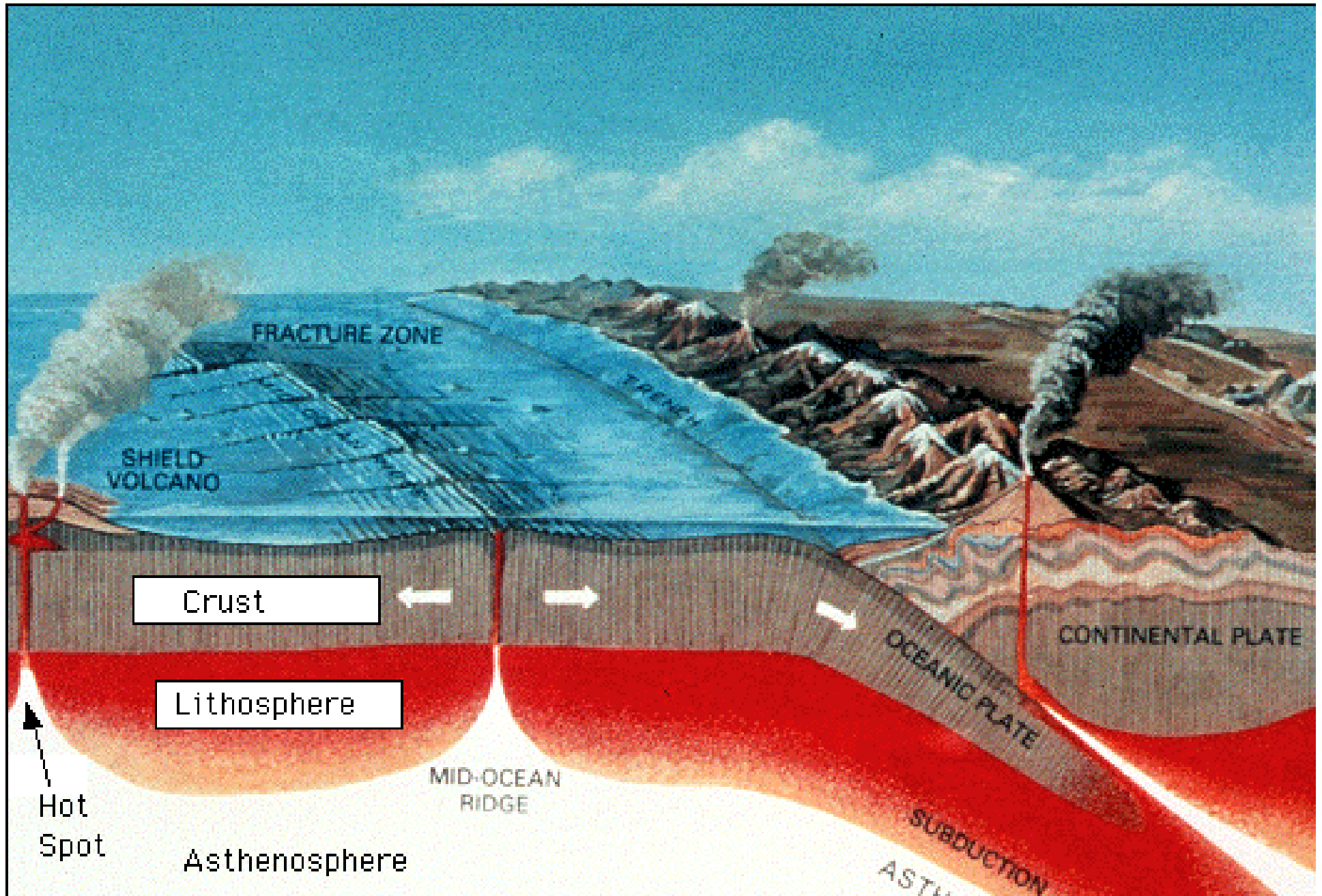
 Subduction zone
(sawteeth point toward
overriding plate)

 Spreading ridge
 Transform fault

III. TYPES OF PLATE BOUNDARIES

- **Divergent Plate Boundaries**
- **Transform Boundaries**
- **Convergent-Subduction
Plate Boundaries**

Plate Boundaries

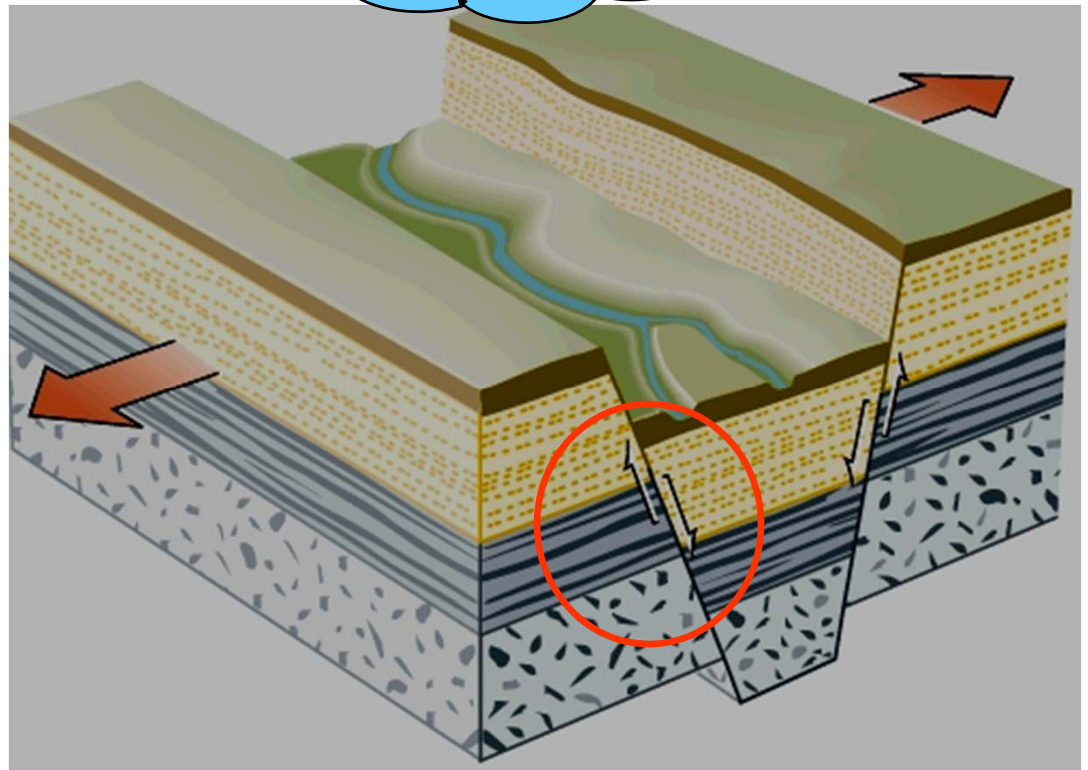


A. Divergent Plate Boundary

1. Plates move
apart

2. Spreading
horizontally

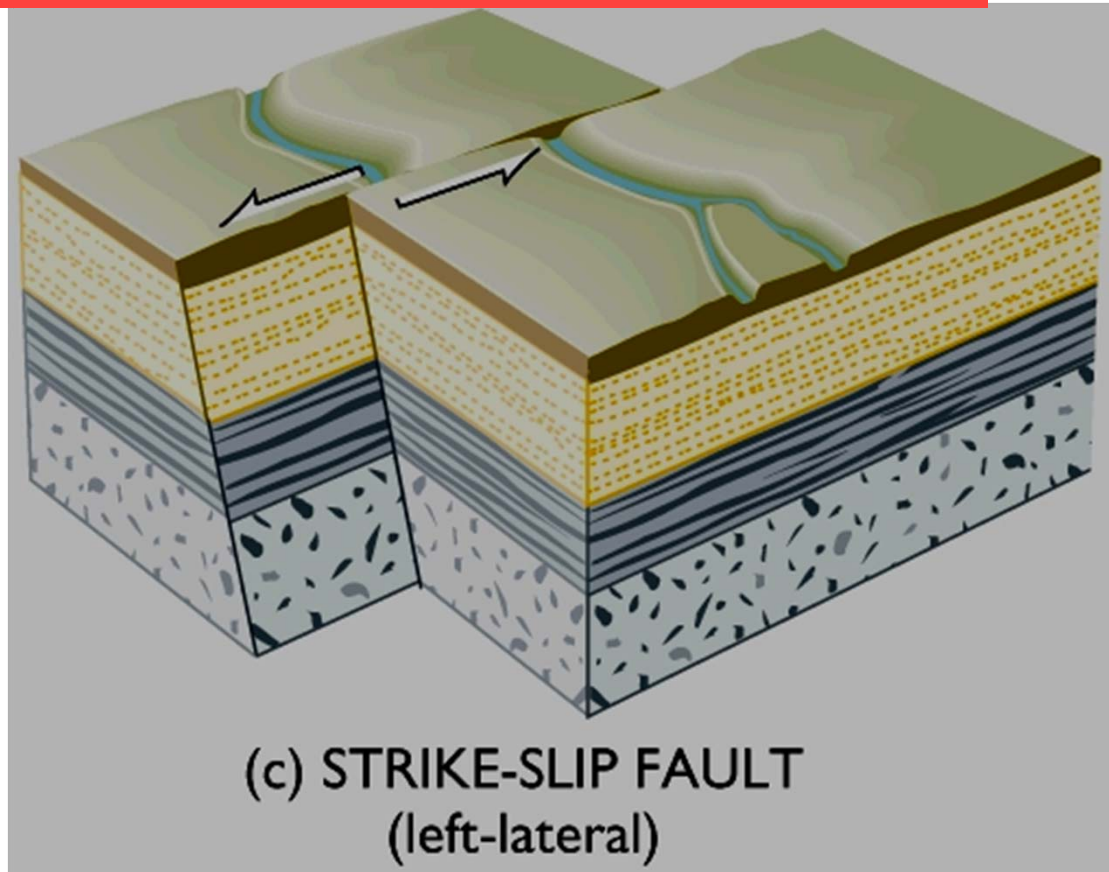
Aka: Spreading

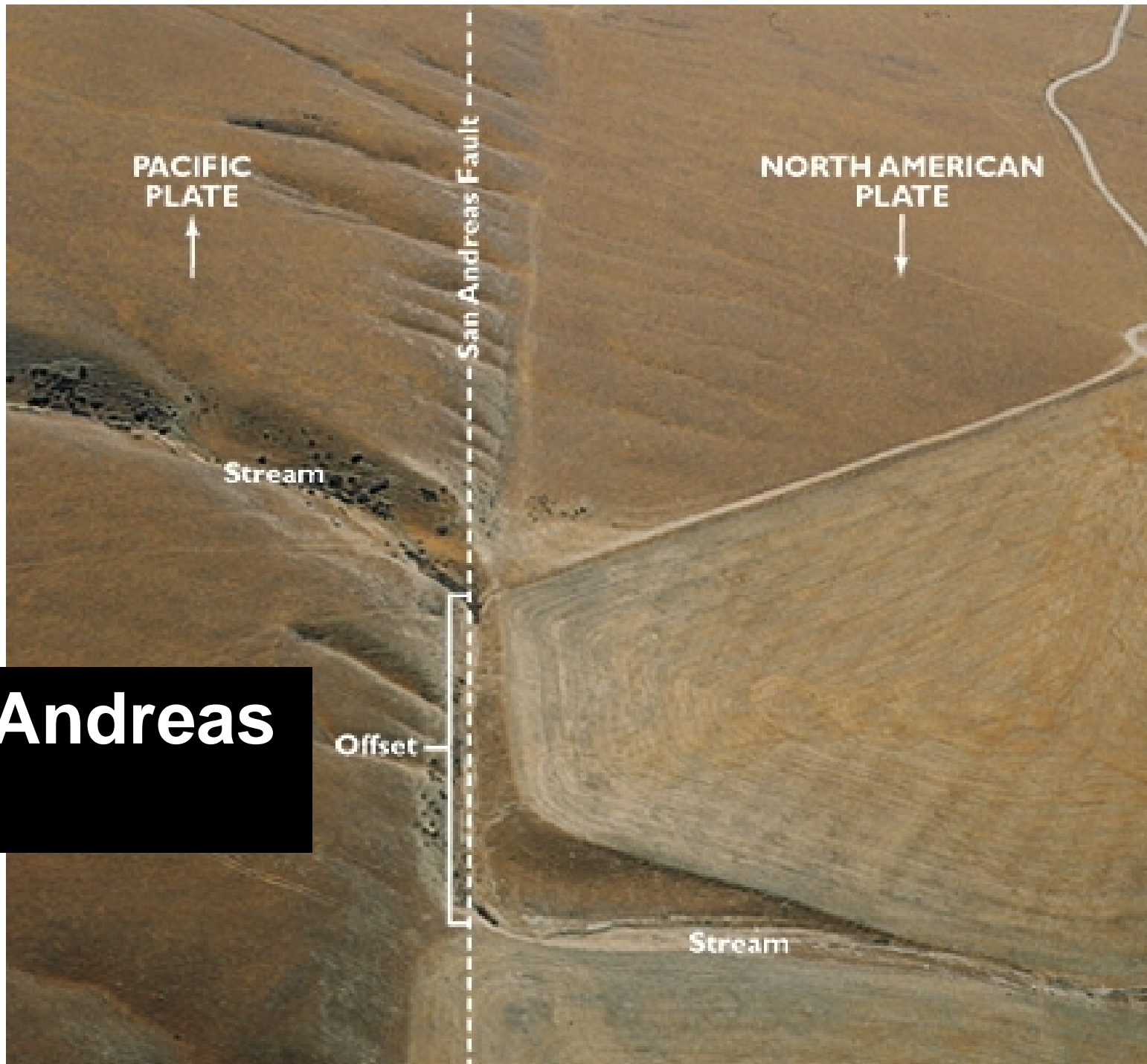


Normal Fault

B. Transform Plate Boundary

1. Plates slide past one another





San Andreas fault

C. Convergent-Subduction Plate Boundaries

1. Occur when plates collide

2. Associated with

1. Subduction zones

2. Volcanic Arcs

3. Mountain Building

←Subduct- one plate gets pushed UNDER another plate.

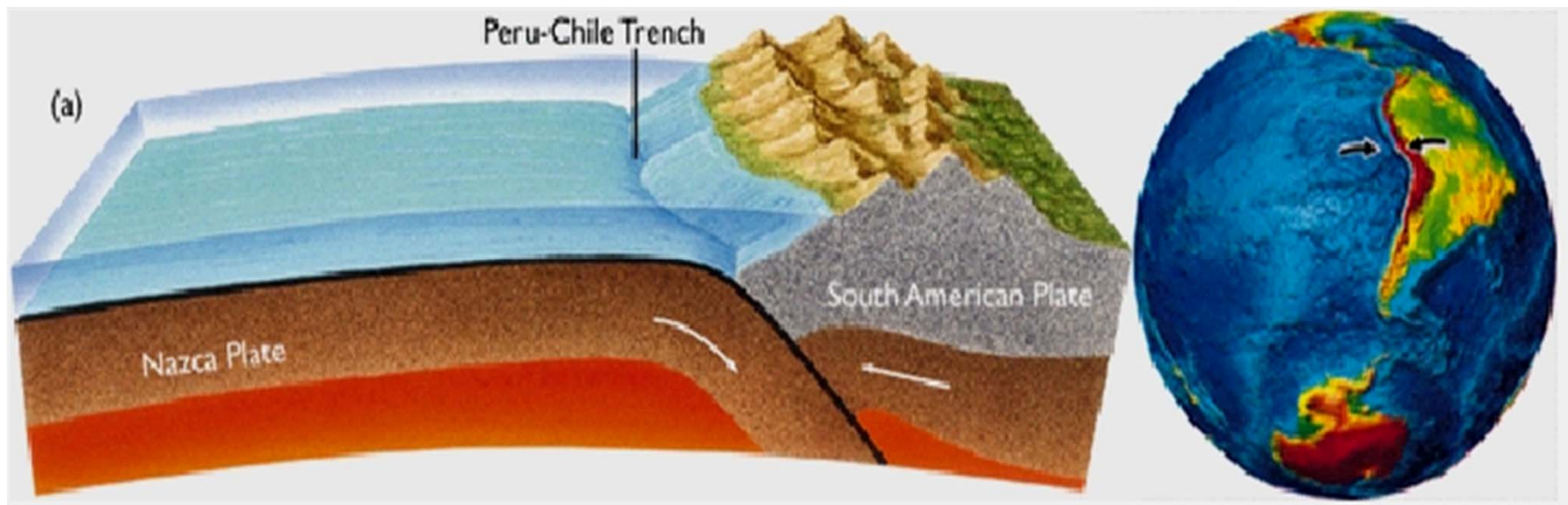


Plate Movement

- http://www.seed.slb.com/en/scictr/watch/living_planet/mountains.htm

D. Ring of Fire

1. Zone around the rim
of the Pacific Ocean.

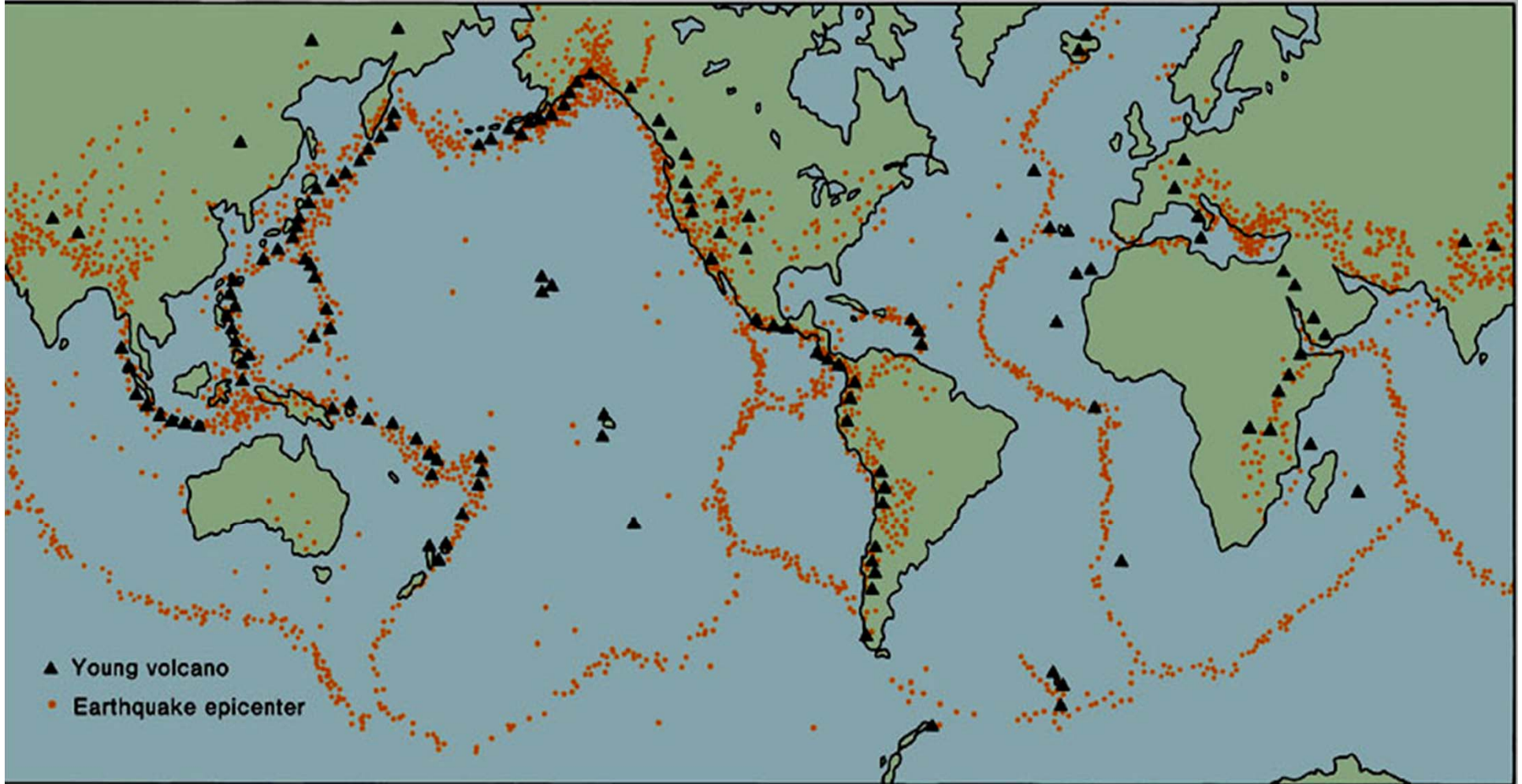
2. Active fault lines
create natural hazards

1. Volcanoes
2. Earthquakes
3. tsunamis



World Locations of Volcanoes and Earthquakes

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Time to Reflect



- Write a 2 sentence summary about today's notes
- Write about 2 facts you already knew
- Write 1 fact that was new to you today 😊