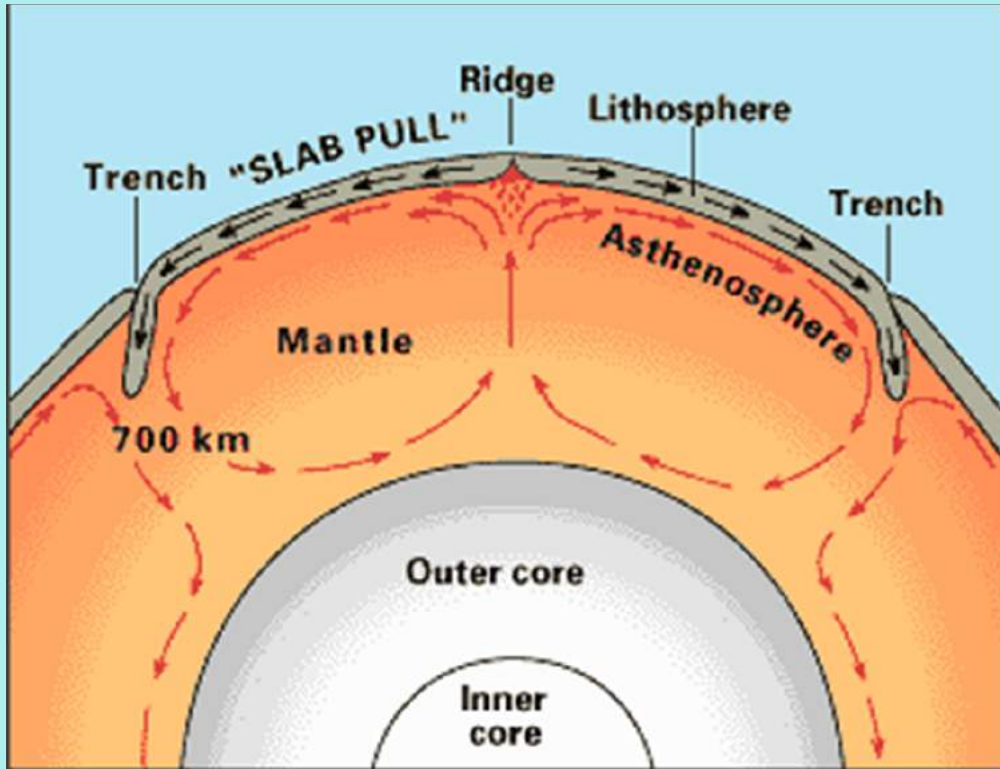
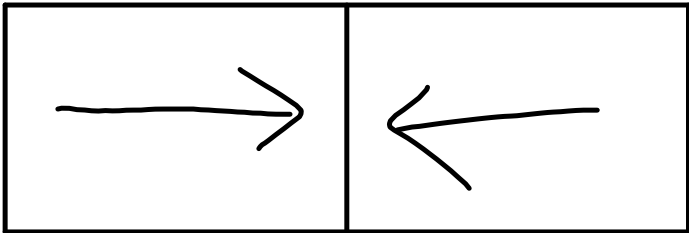
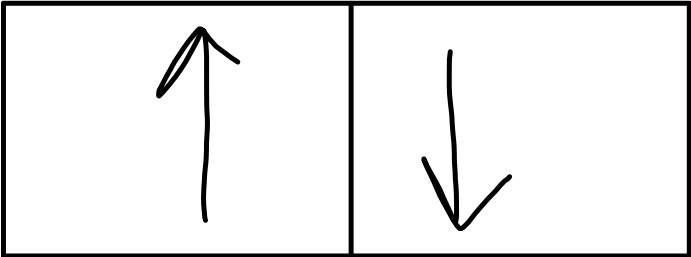
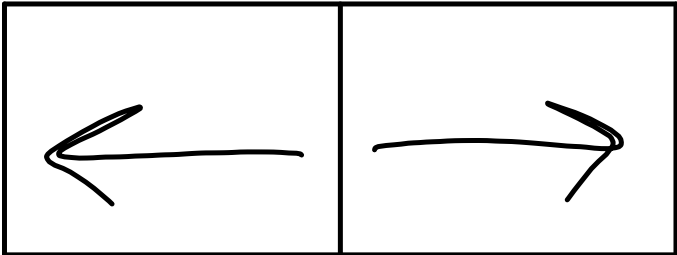
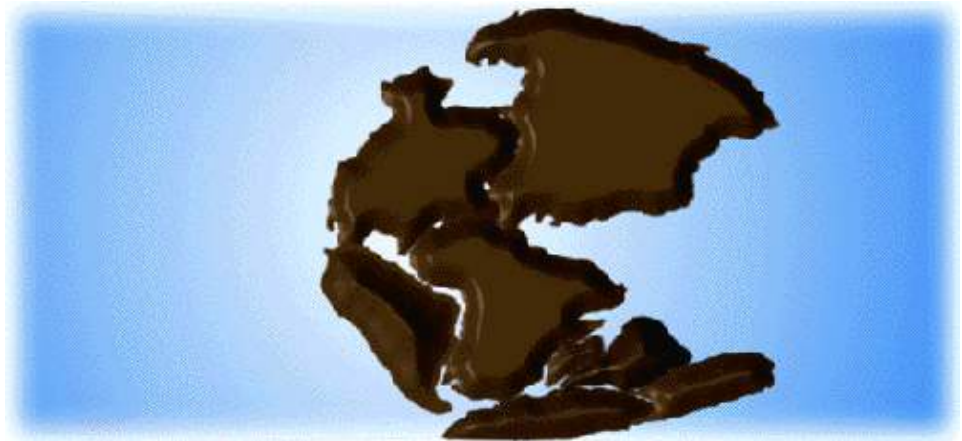


PLATE TECTONIC NOTES





Lithosphere plates move in many directions



They move because of convection currents within the mantle.

When plates move they interact with each other and form three boundary types.

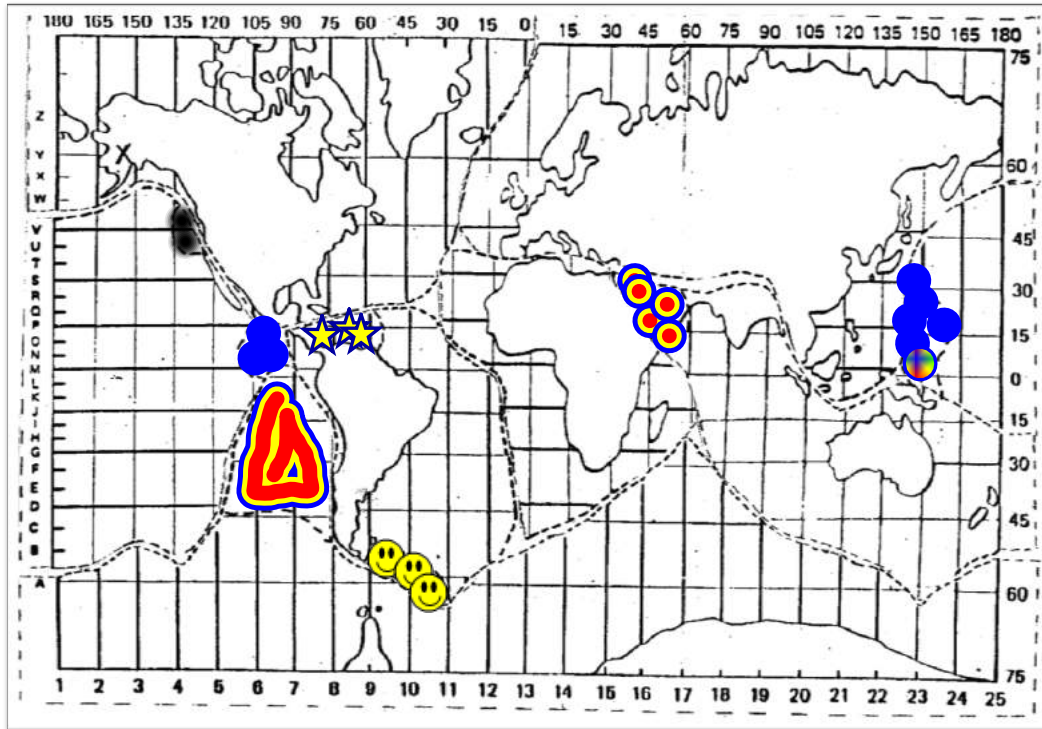
Type of Margin	Divergent	Convergent	Transform
Motion	Spreading	Subduction	Lateral sliding
Effect	Constructive (oceanic lithosphere created)	Destructive (oceanic lithosphere destroyed)	Conservative (lithosphere neither created or destroyed)
Topography	Ridge/Rift	Trench	No major effect
Volcanic activity?	Yes	Yes	No

(a) Divergent boundary: Two plates move apart, creating a ridge. Magma rises from the asthenosphere through the ridge. Labels: Ridge, Lithosphere, Asthenosphere.

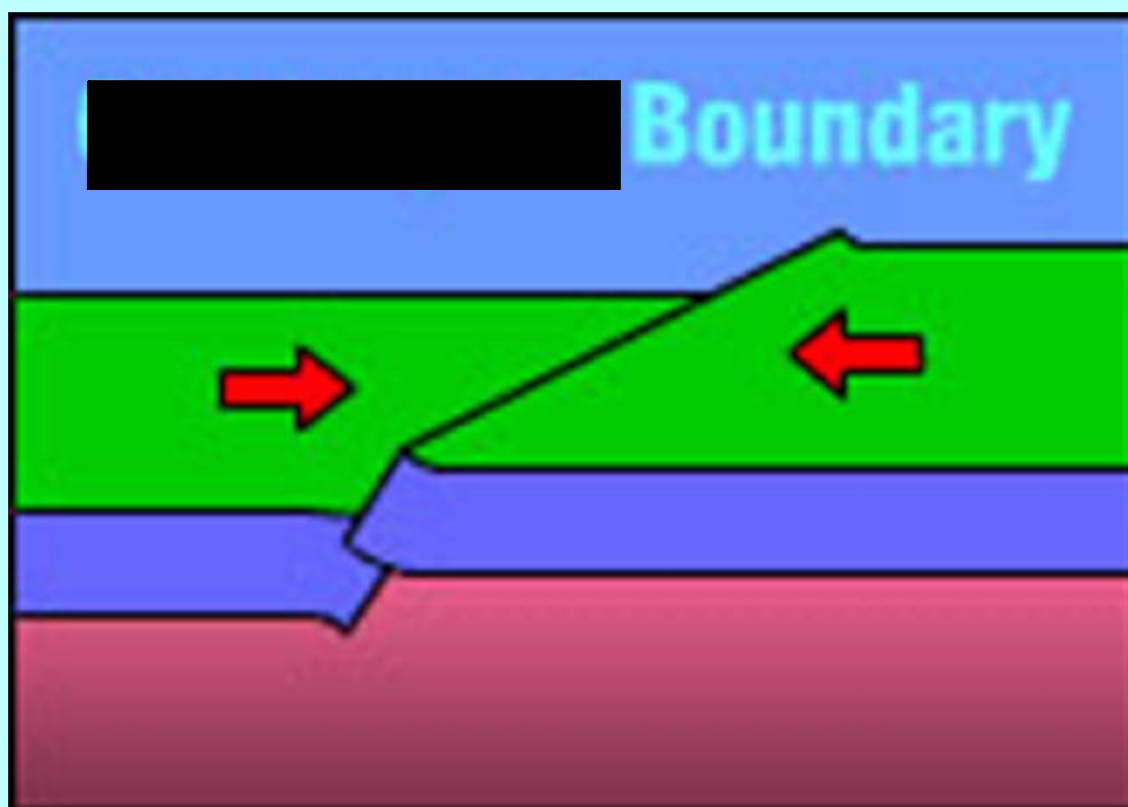
(b) Convergent boundary: One plate subducts under another, creating a trench. Volcanoes form a volcanic arc. Earthquakes occur along the subduction zone. Labels: Volcanoes (volcanic arc), Trench, Earthquakes.

(c) Transform boundary: Two plates slide past each other horizontally. Earthquakes occur within the crust. Label: Earthquakes within crust.

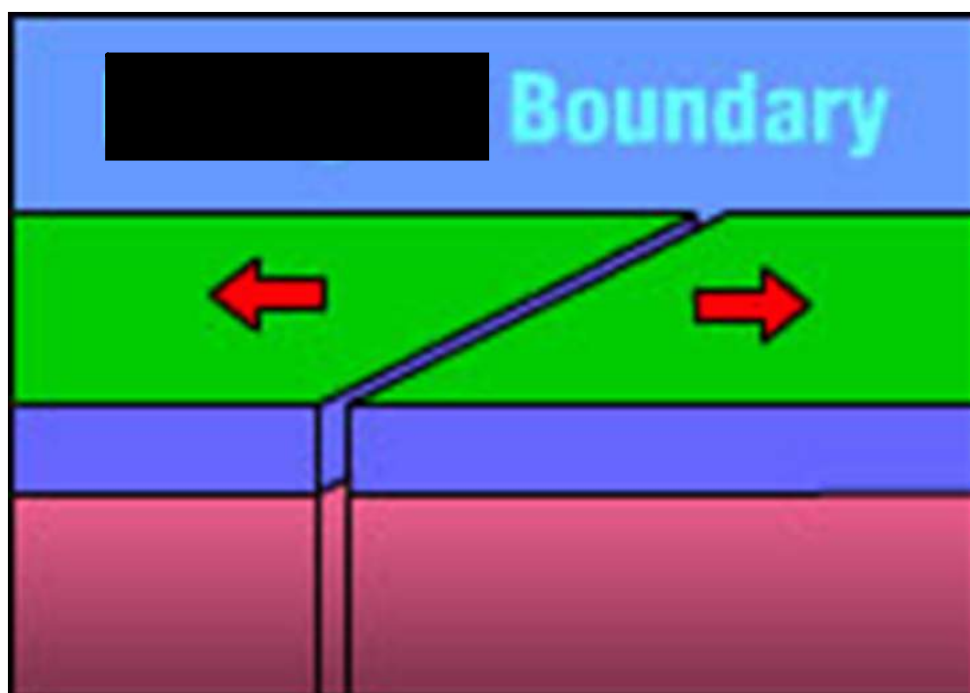
The MINOR plates are marked on this map...



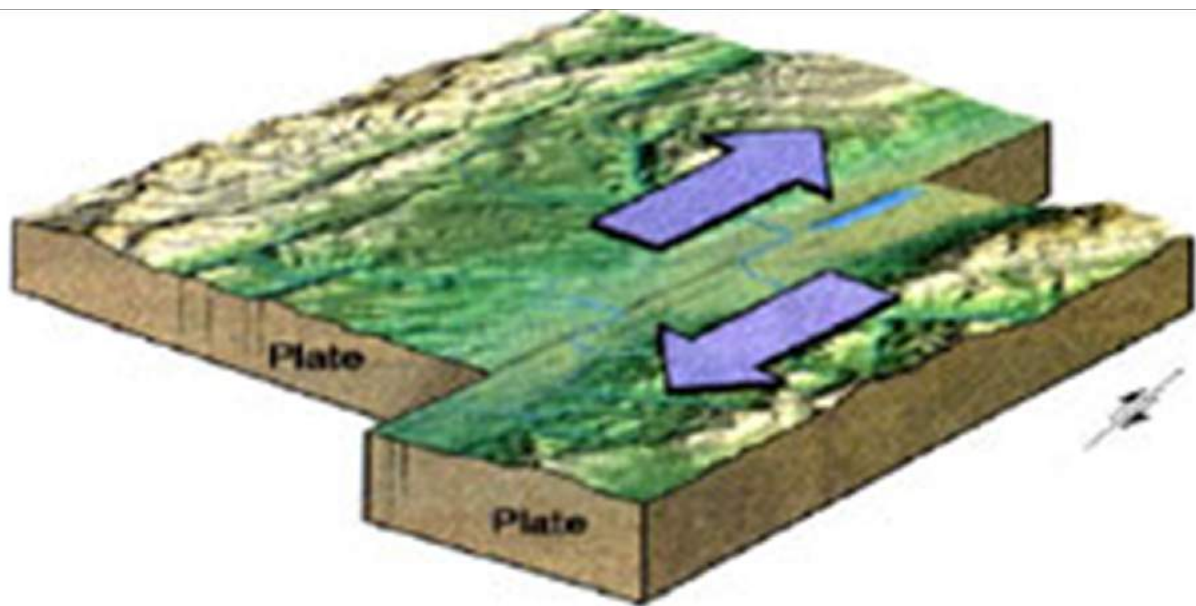
Two plates may collide: convergent boundary



Two plates may spread apart:
divergent boundary. —



- Two plates may slide past each other: transform boundary.

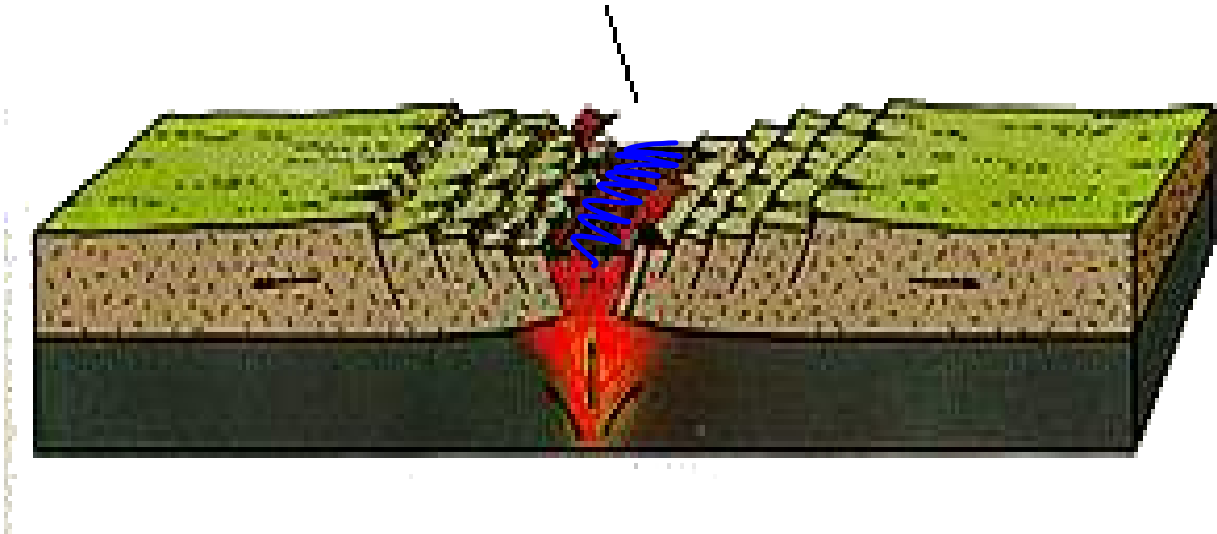


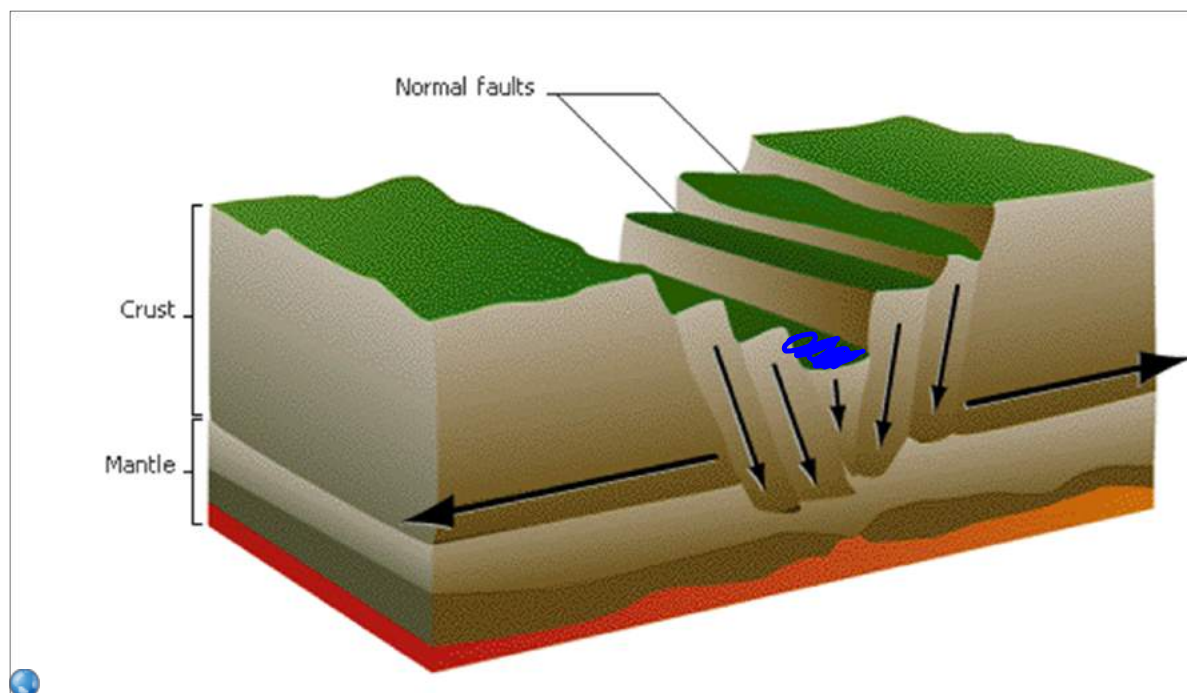
Granite
&
Basalt

lab number and name of person writing data	Density of Basalt (with correct units)	Density of Granite (with correct units)
1		
2		
3		
4		
5		
6		
7		
8		

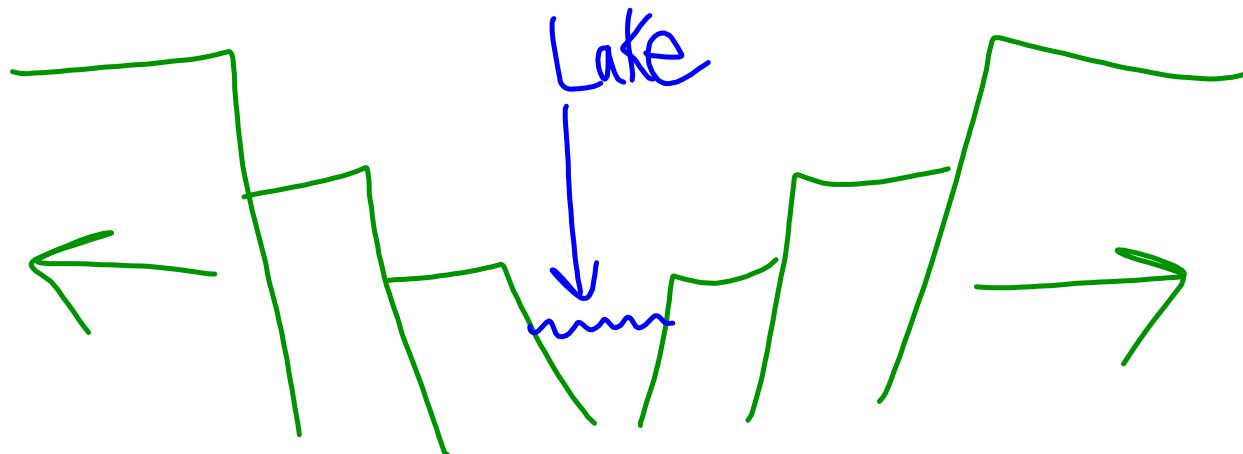
3. Two Divergent Boundaries: two plates SEPARATE.

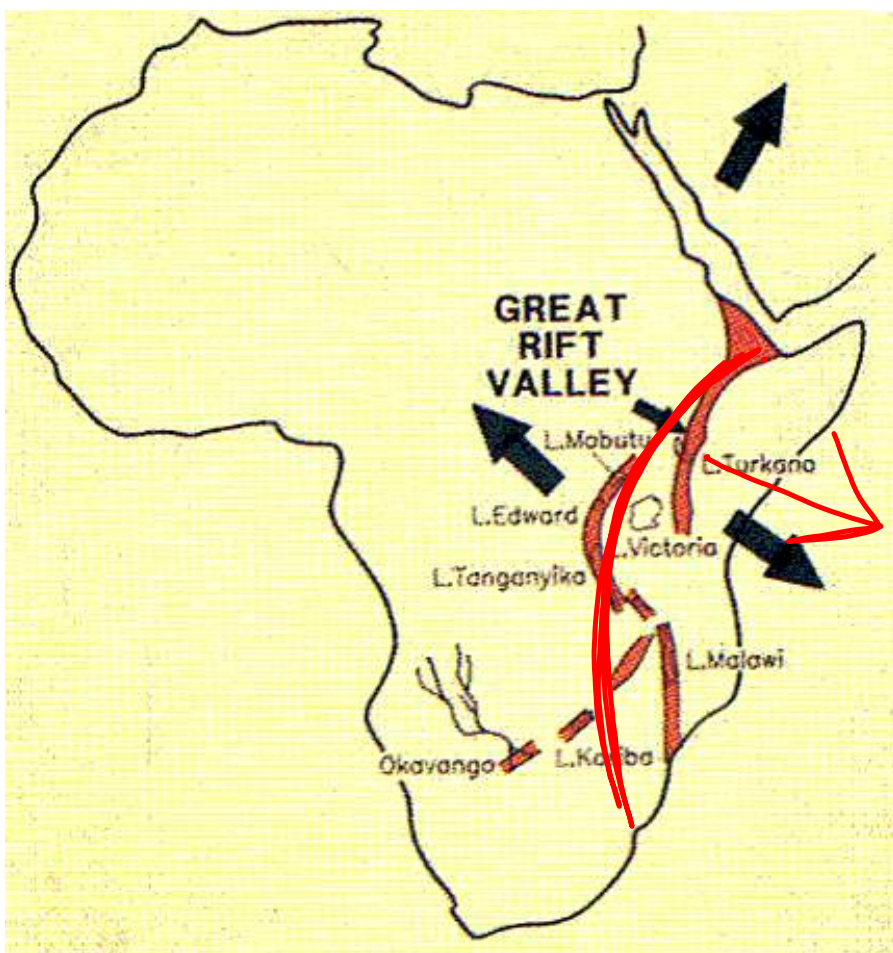
- Continent: Rift Valley
RIFT VALLEY





DRAWING OF RIFT VALLEY:





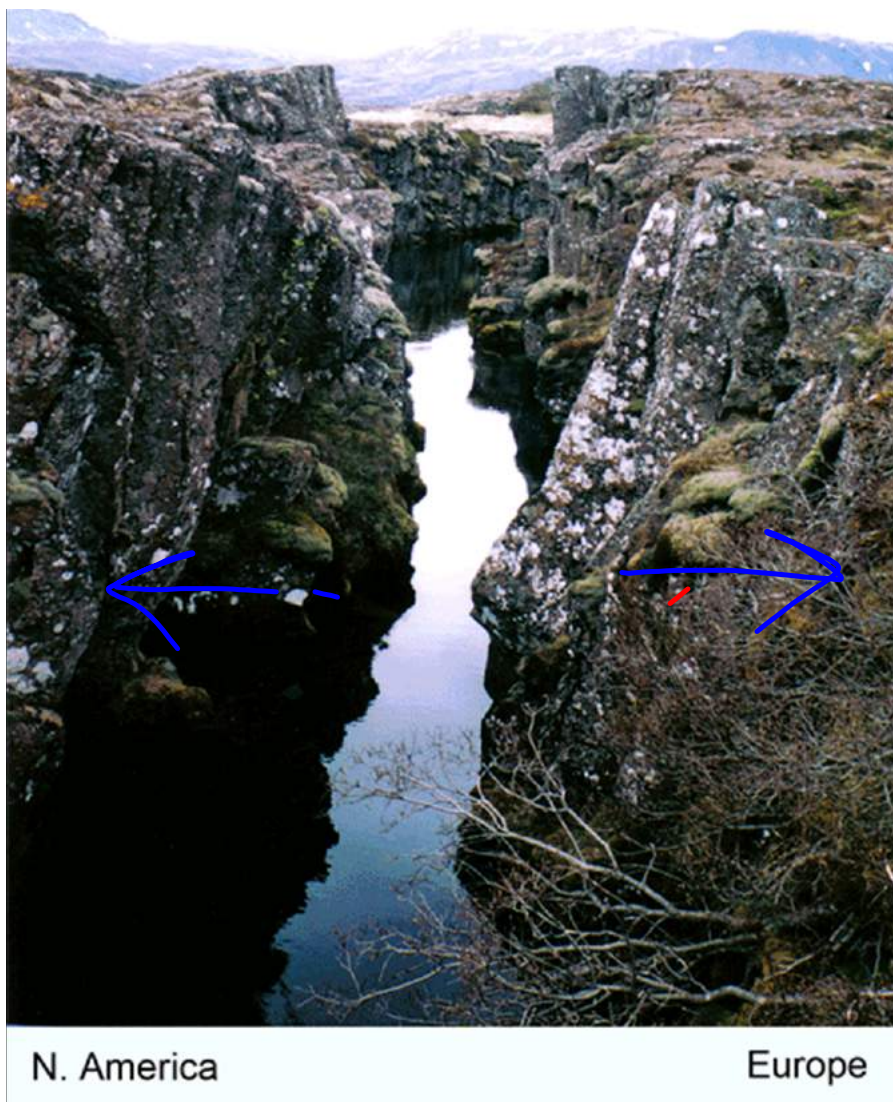


Great African Rift Valley

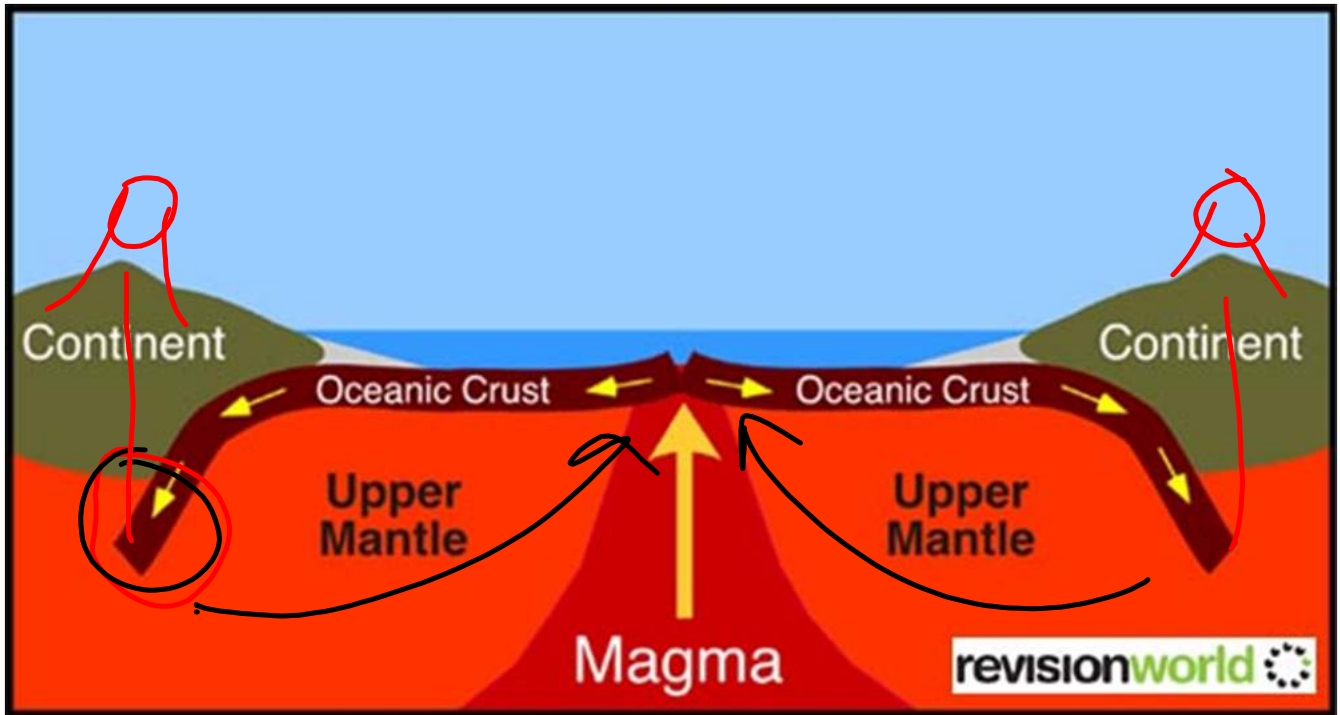


Satellite Image



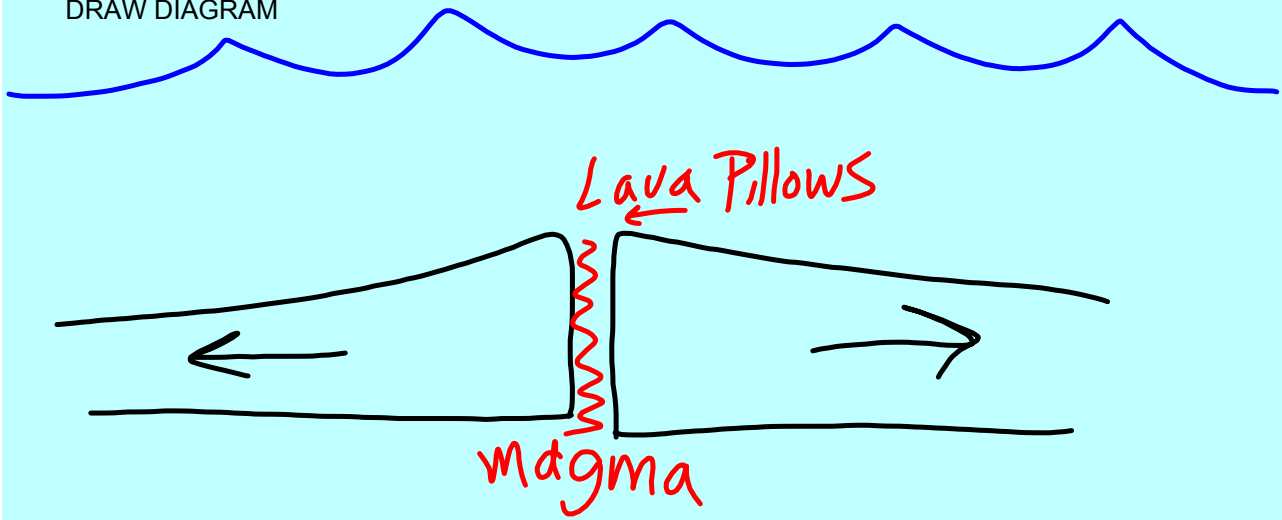


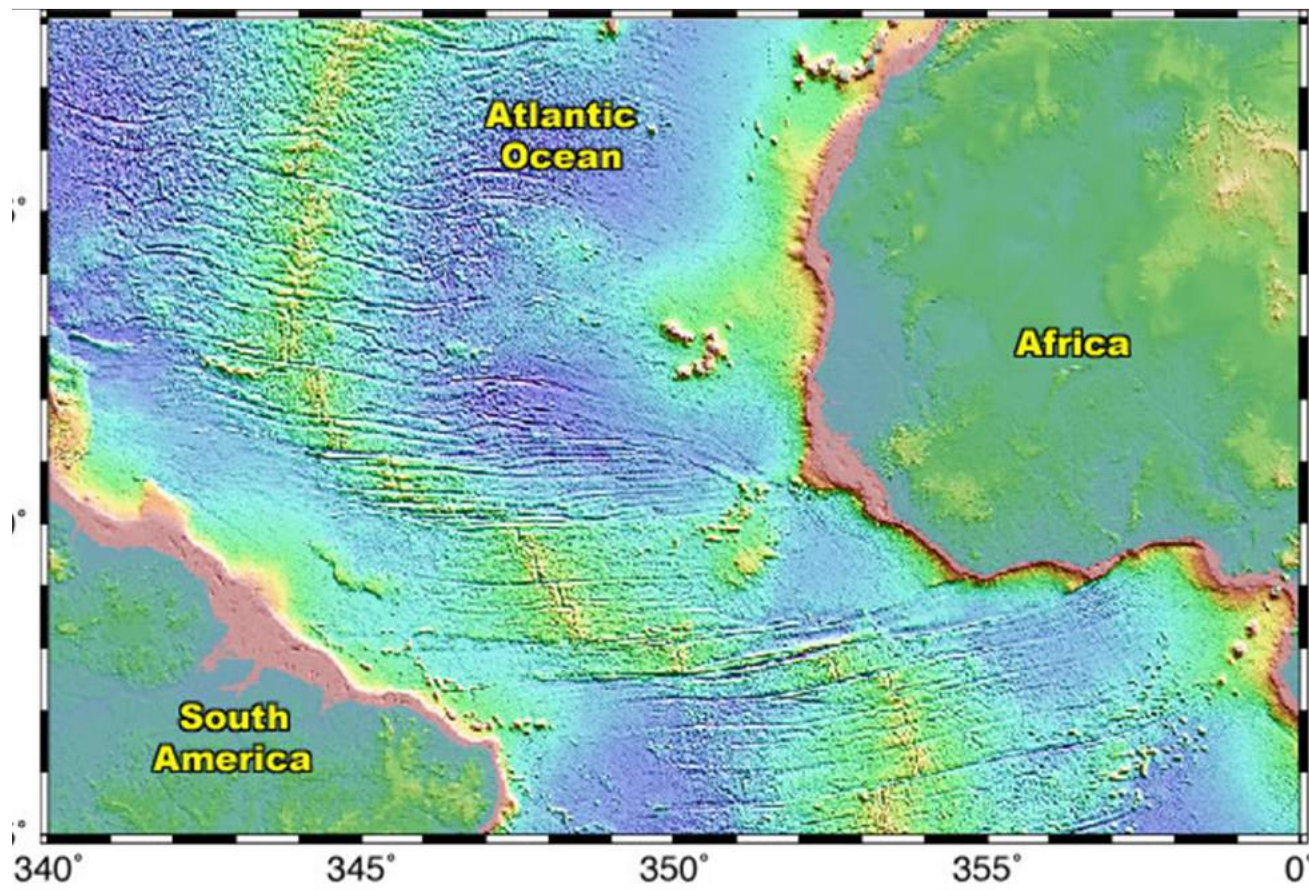
- Ocean: Mid Ocean Ridge (MOR)



Mid Ocean Ridge

DRAW DIAGRAM



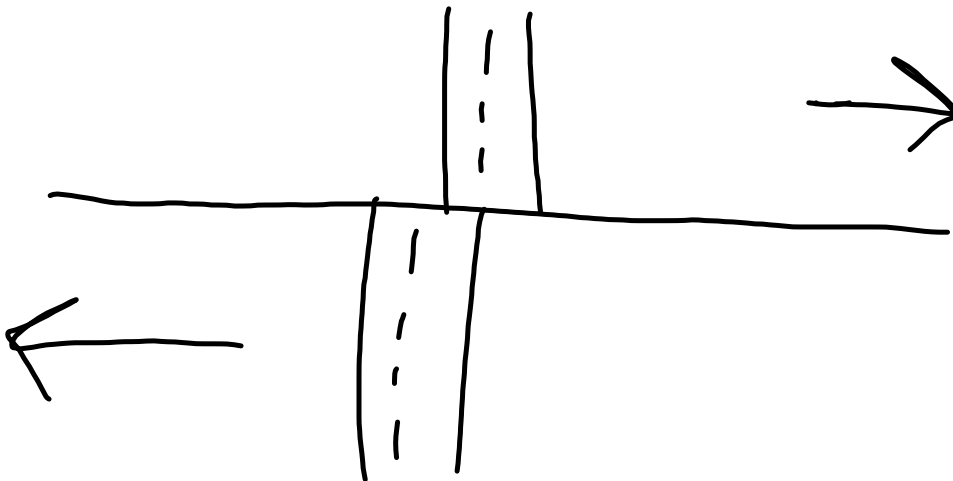


Transform Boundary:

Two plates slide horizontally past each other, and create EARTHQUAKES!!!!

Ex: San Andreas Fault Zone in So. California

BIRD'S EYE VIEW DRAWING: (looking from above)

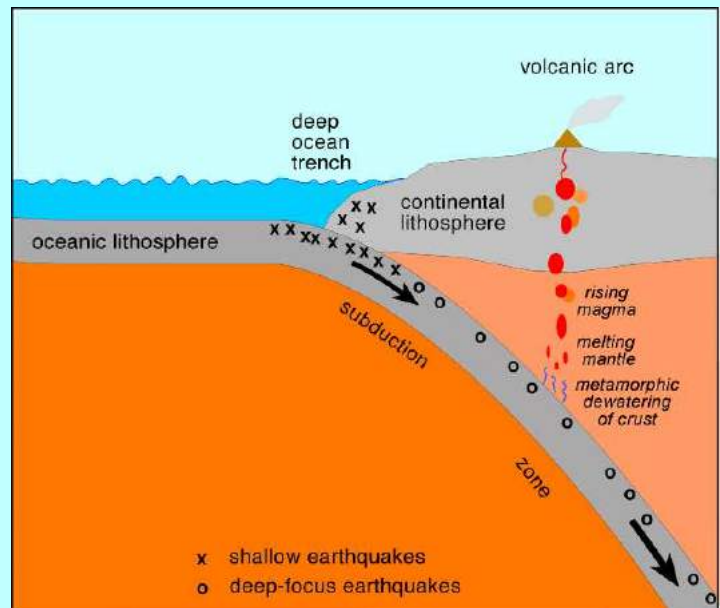
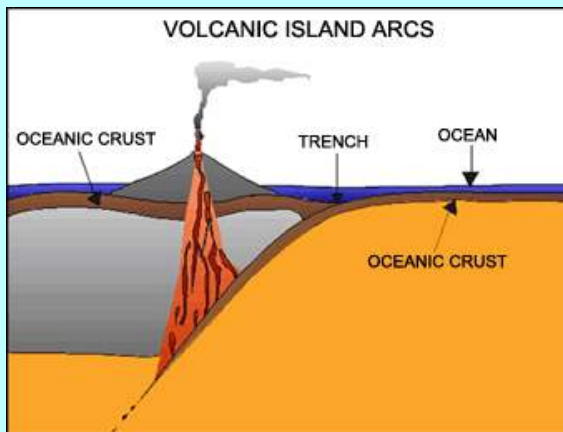




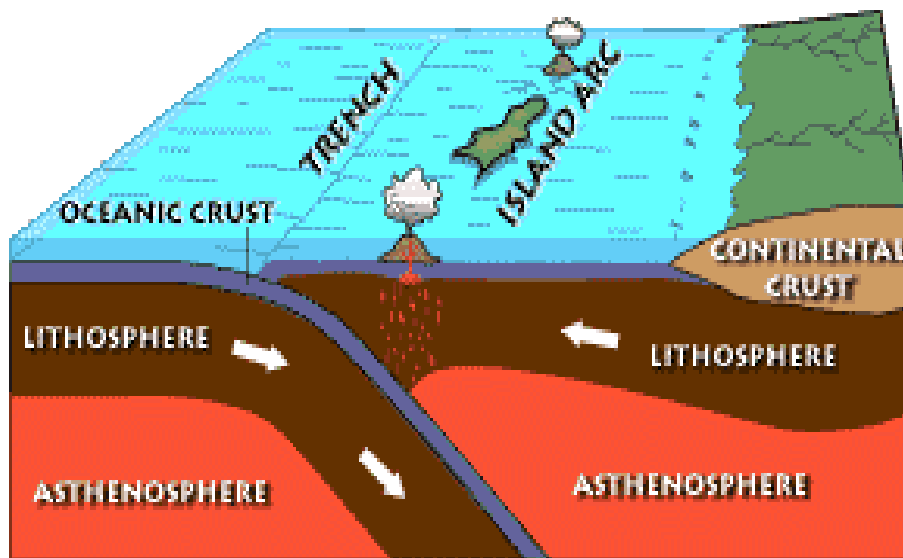


Subduction definition:

When an ocean plate is pushed under another plate and is melted.

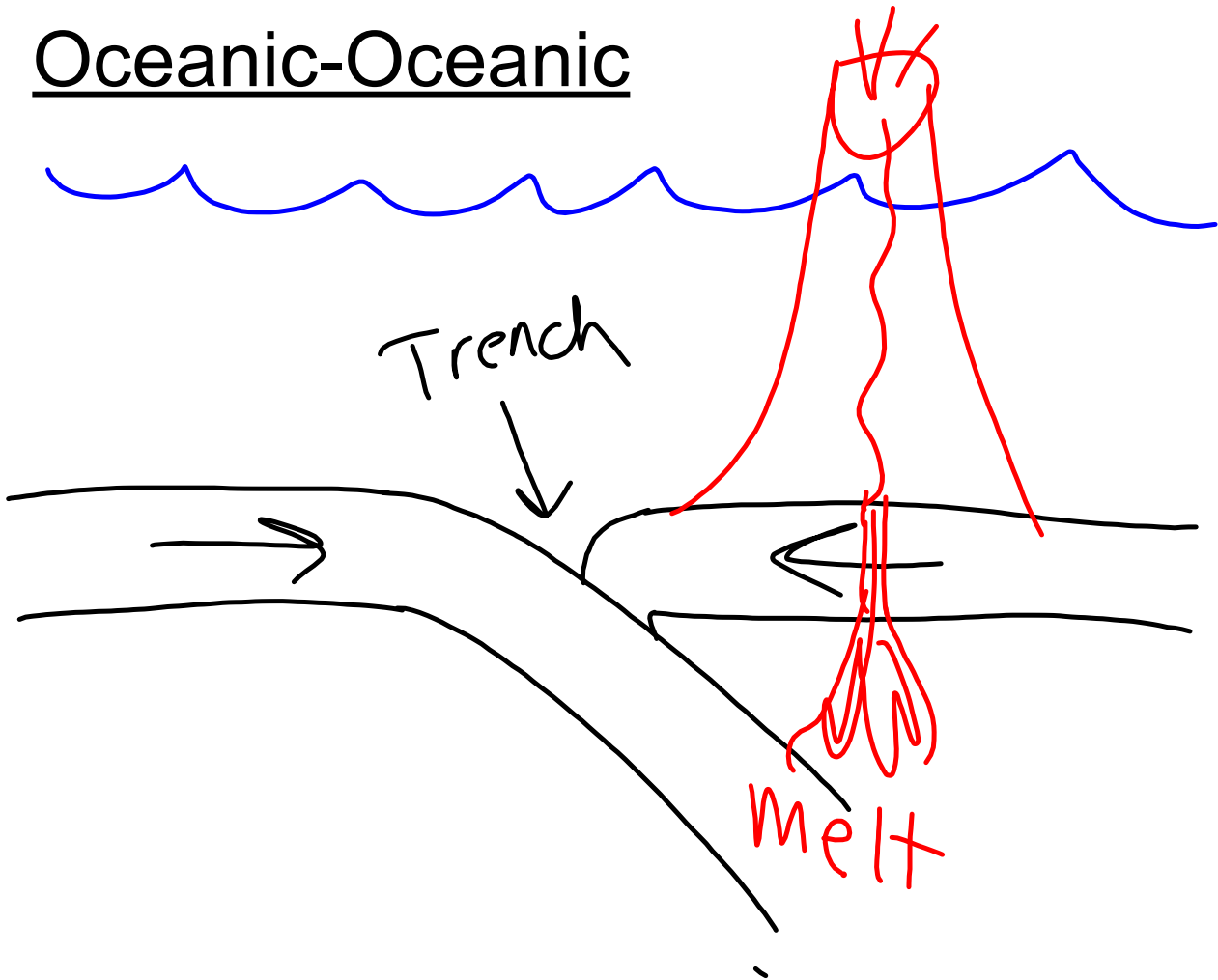


Oceanic-oceanic collision-
creates deep ocean trenches.



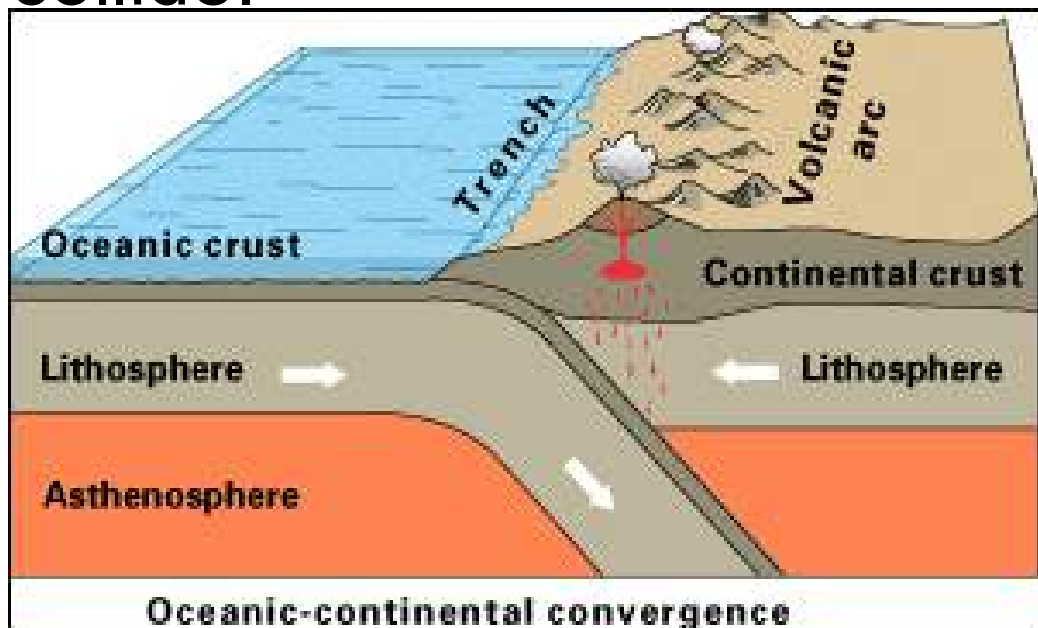
Ex: Marianas Trench (deepest point in the ocean. 30,000ft!) (show on google earth.)

Oceanic-Oceanic



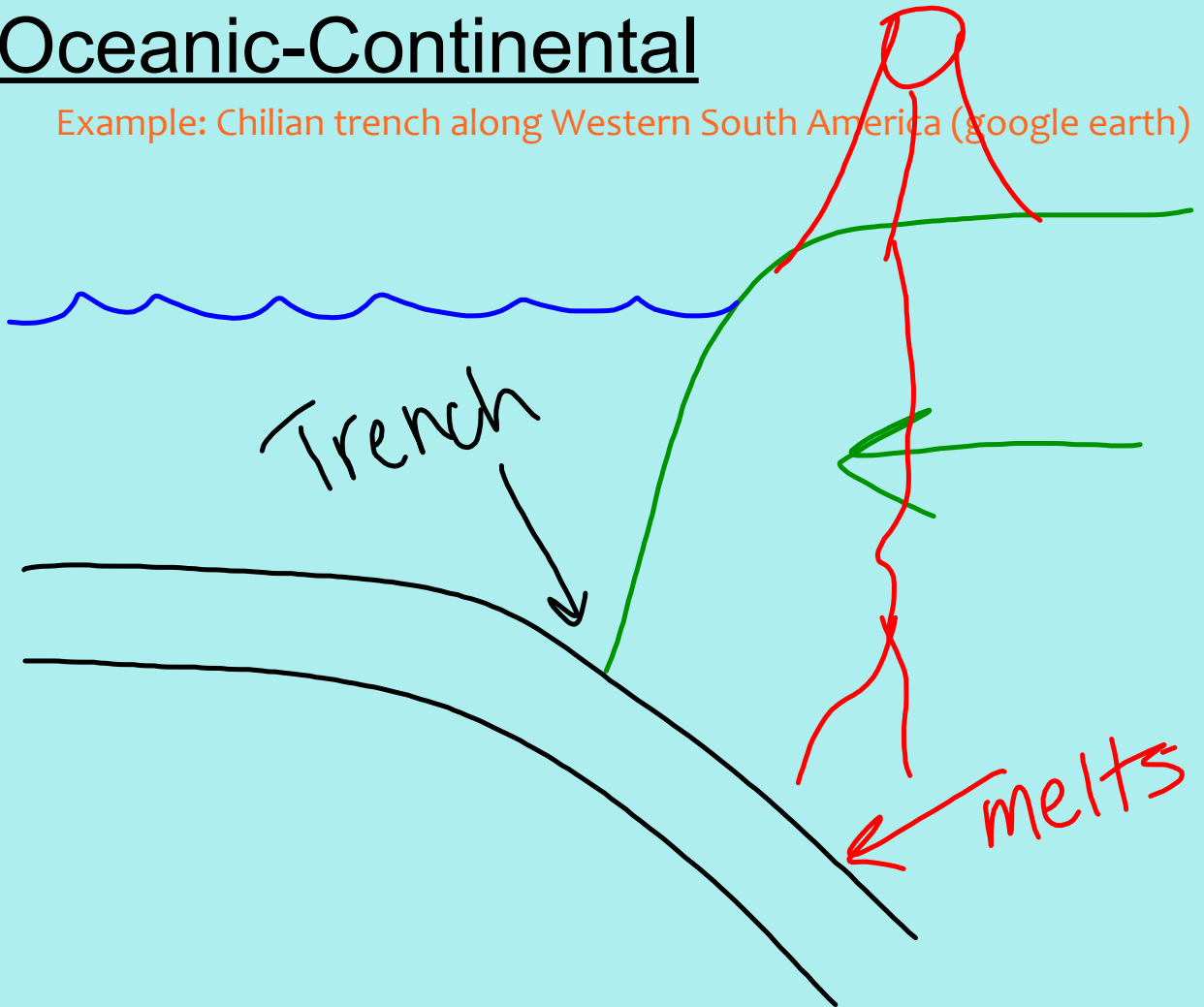
- Oceanic-Continental Collision - produces subduction of oceanic plate under continental plate. A deep ocean trench will form where they collide.

ANIMATION
•

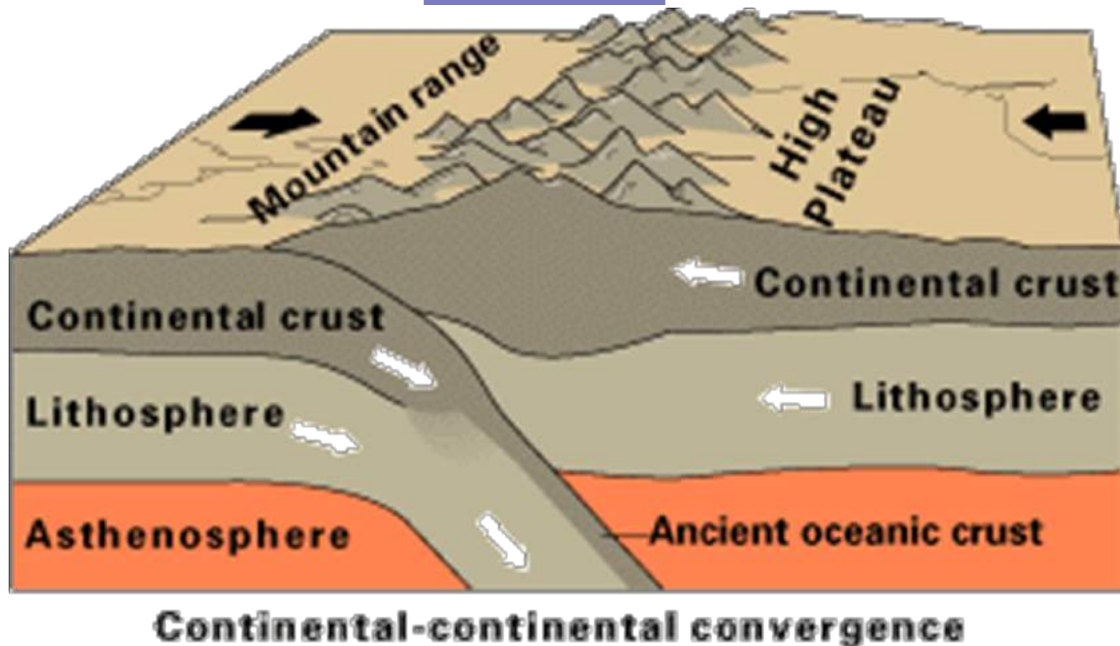


Oceanic-Continental

Example: Chilian trench along Western South America (google earth)

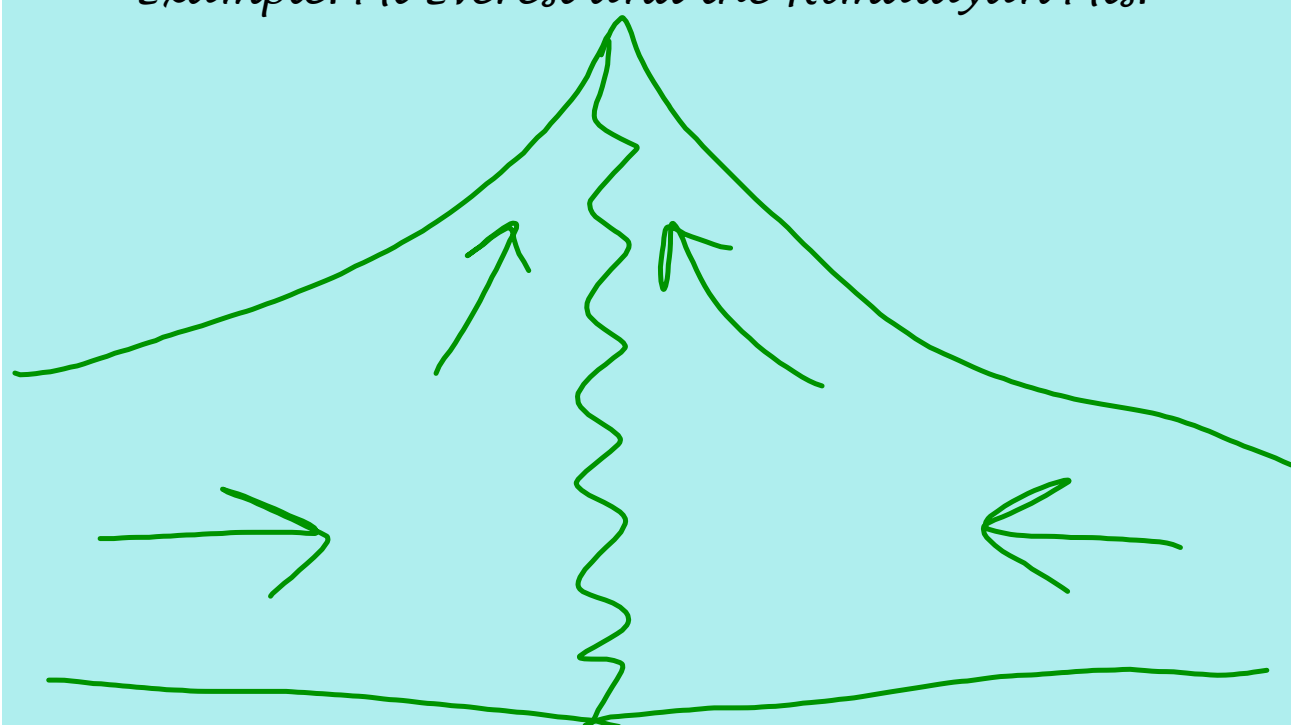


- Continental-continental collision - produces mountain ranges. animation
- Continental plates can NEVER be subducted or melted

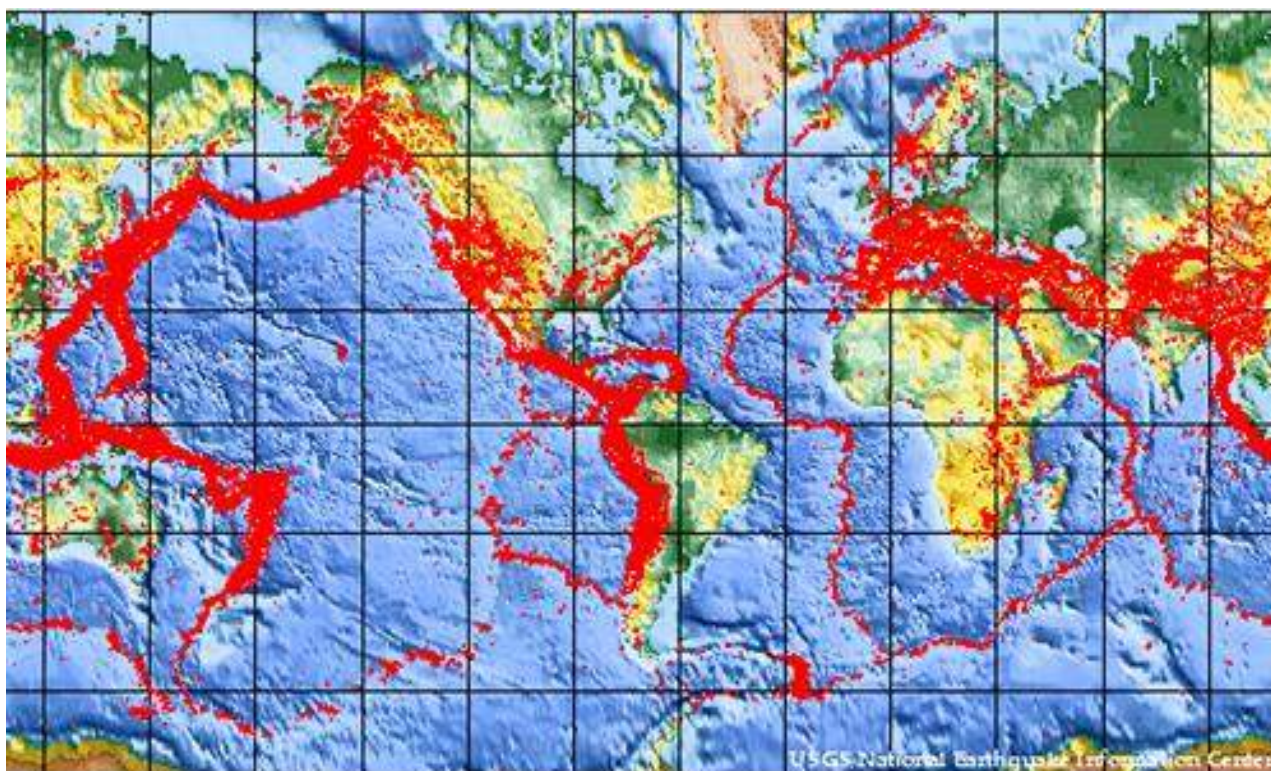


Continental -Continental

Example: Mt Everest and the Himalayan Mts.



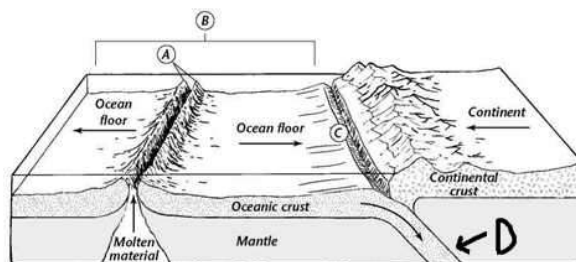




For your Posters:

1. Make a detailed, **colored** drawing of your assigned card.
2. Include **One Fact** or Details from your **Tectonic Notes**, and the **specific example** from notes
3. Find **one fact from the book** to include on your poster.
4. **EVERYONE** will present your poster to the class!!! you have to say at least one thing...

Sea-Floor Spreading

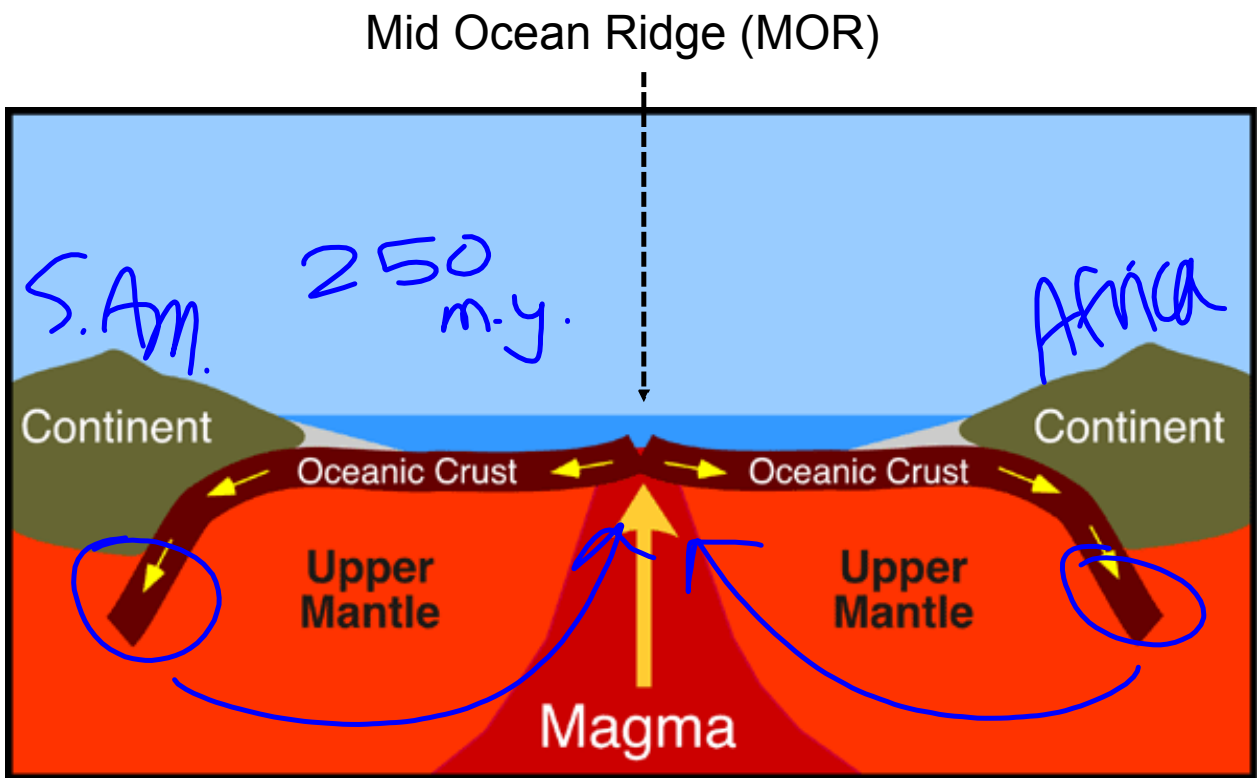


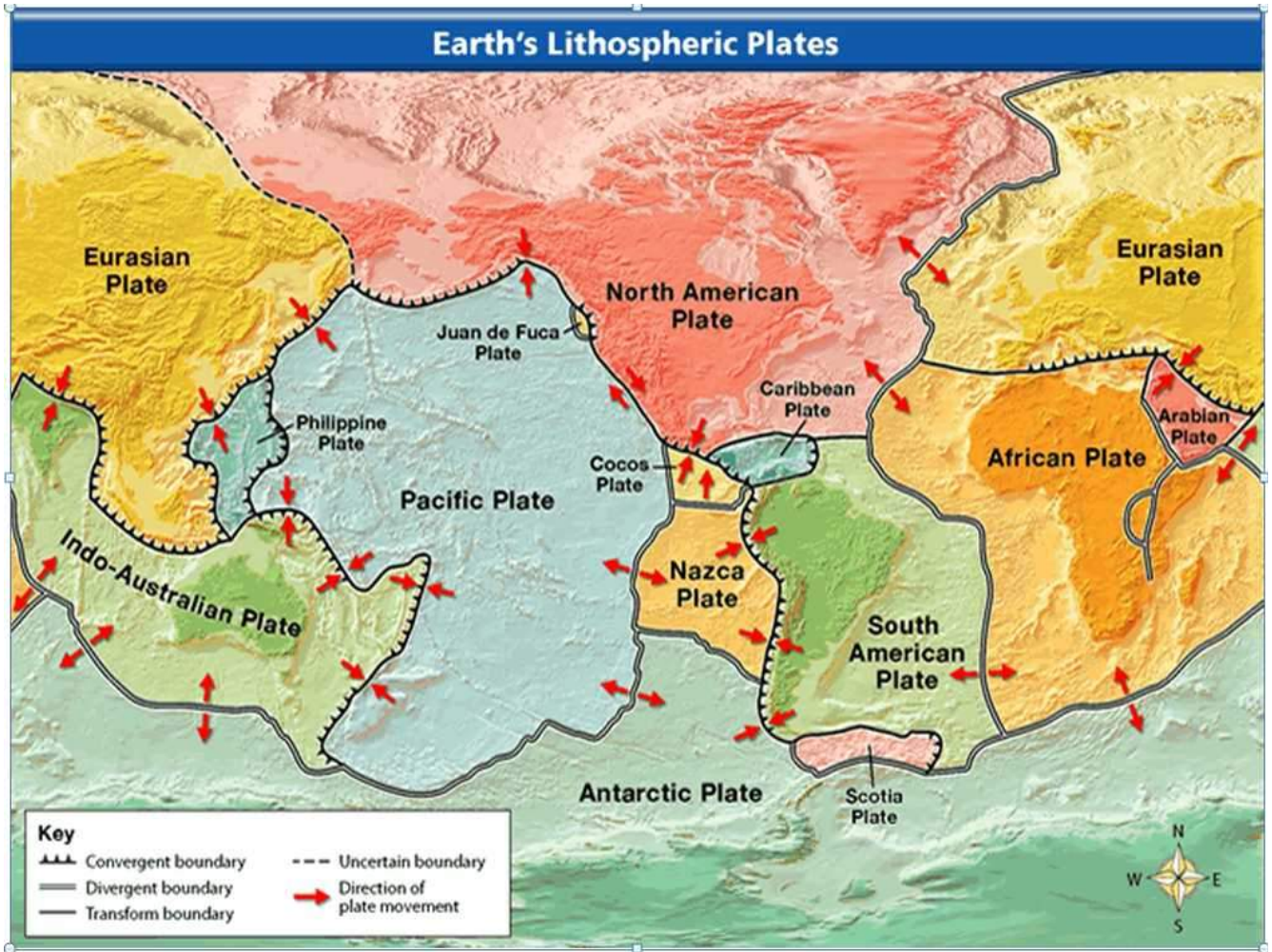
Use the figure above to answer the questions that follow.

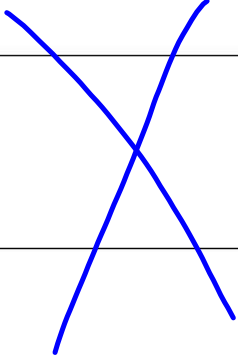
1. Name the feature of the ocean floor shown at A. What happens here?
2. What happens to old oceanic crust as magma rises from the mantle at an MOR?
3. Where along the ocean floor are the basalt rocks the OLDEST? How do we know that for certain?
4. What process is occurring at D? _____ Can this happen to Continental plates? _____

Building Vocabulary

5. The feature on the ocean floor at C is called a(n) _____.
6. Which boundary is shown at A _____ (separating)
7. Which boundary is shown at C _____ (colliding)
8. Where on the ocean floor is the rock the youngest? _____.
9. Where is the ocean floor the oldest? _____.
10. The process by which the ocean floor sinks into the mantle is called _____.
11. A chain of underwater volcanoes along which sea-floor spreading occurs is a _____.
12. How many million years does it take for the ocean floor to be "recycled"? _____.



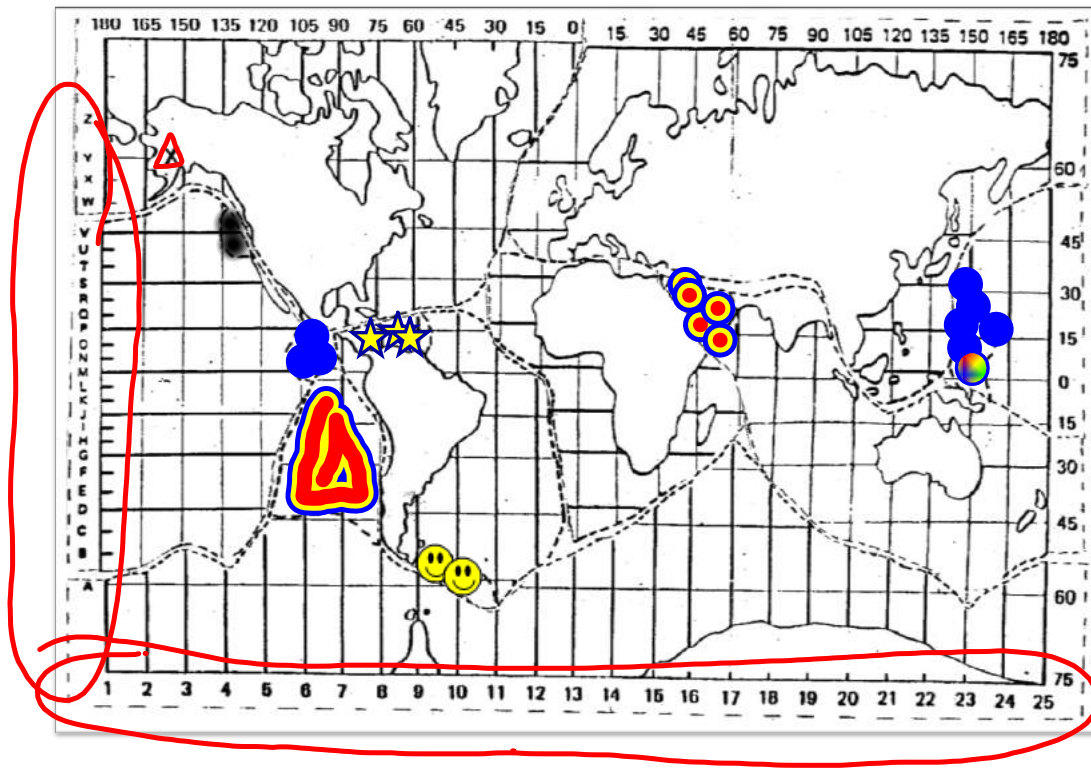


Type of Boundary		Sketch of Boundary	Collide Separate or Slide	What features form at this Plate Boundary	Examples (from notes)
DIVERGENT	M.O.R.			(Earthquakes, volcanoes, lava pillows, trenches, mountain ranges, lake)	
	Rift Valley				
TRANSFORM					
CONVERGENT	Continental-Continental				
	Oceanic-oceanic				
	Oceanic-continent				

EARTHQUAKE TABLE = X**VOLCANO TABLE = △**

Letter	Number		Letter	Number
Y	3		Y	3
Y	4		V	5
V	4.5		Q	2.5
U	13		Q	6
U	14		M	8
T	15		Z	12
S	5		U	11
S	17		P	11.5
Q	8		V	14
W	23.5		U	15
T	22.5		S	17
P	19.5		X	24
P	6		U	22.5
K	20		L	23.5
L	23		L	21
I	17		L	20
M	7.5		J	17
H	8		P	15
C	8		G	8.5
B	9.5		B	11.5

The MINOR plates are marked on this map...





Attachments



biker antelope.xspf