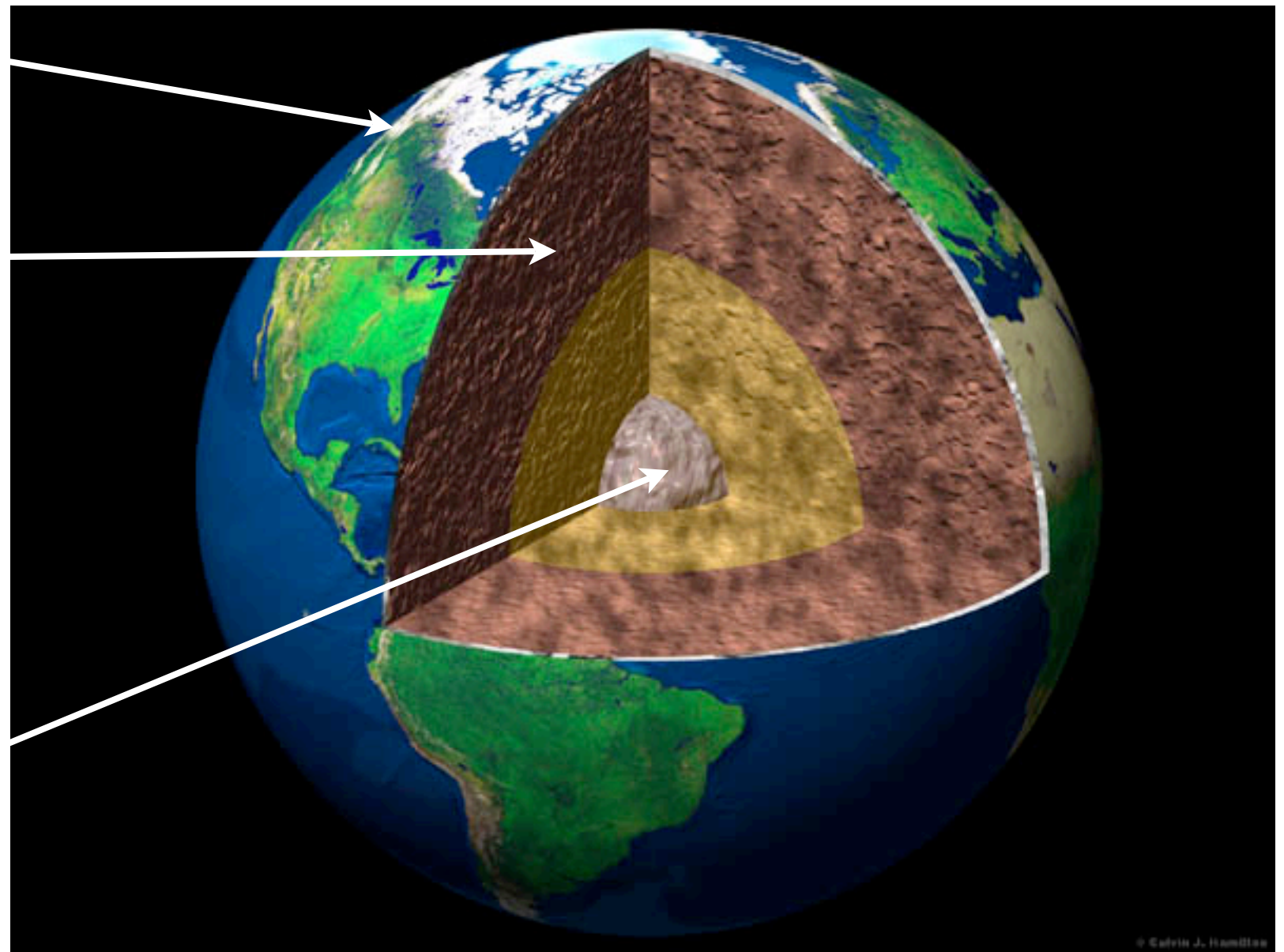
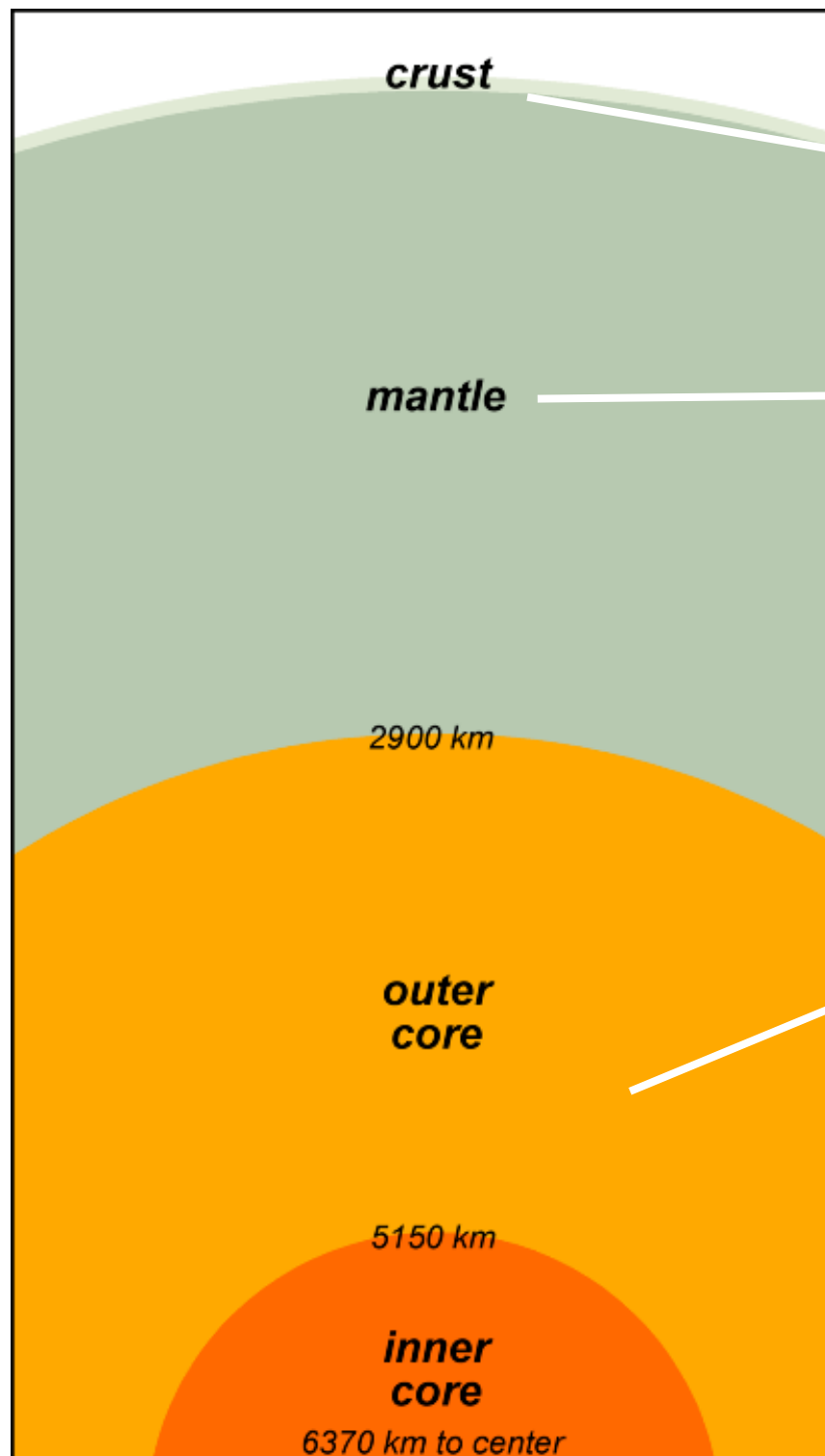


RELIEF

Unit 2

1.- What is the Earth made of?

The structure of the Earth



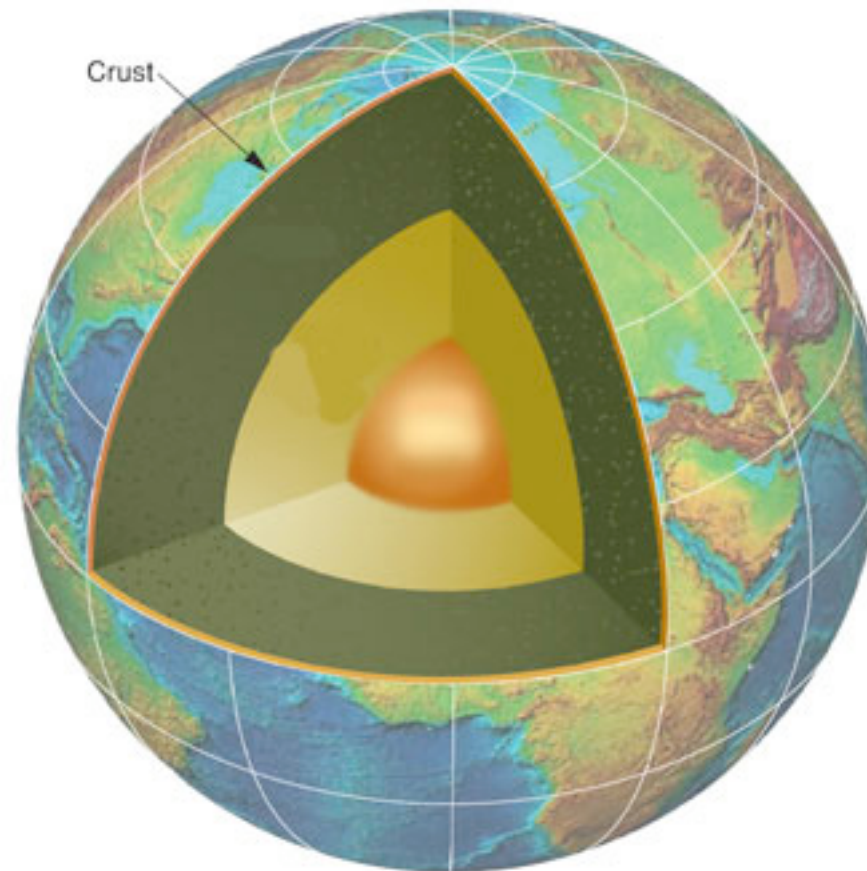
© Calvin J. Hamilton

The Earth 's crust

The earth 's crust
has a solid part and a liquid part

The Continents

Asia
America
Africa
Antarctica
Europe
Oceania

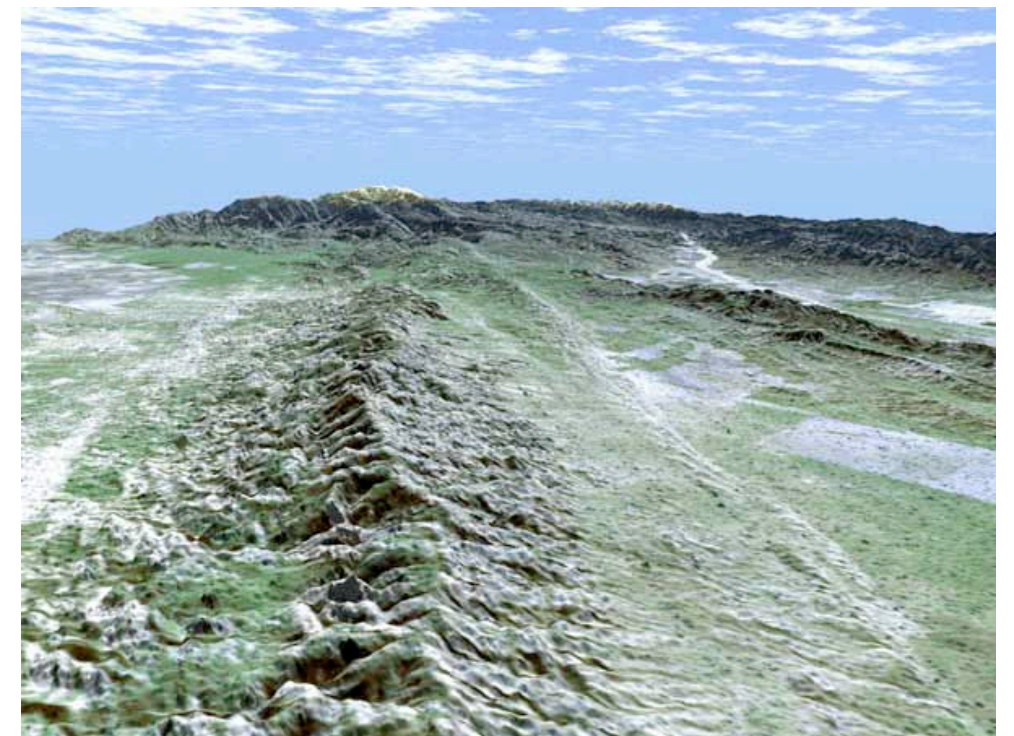
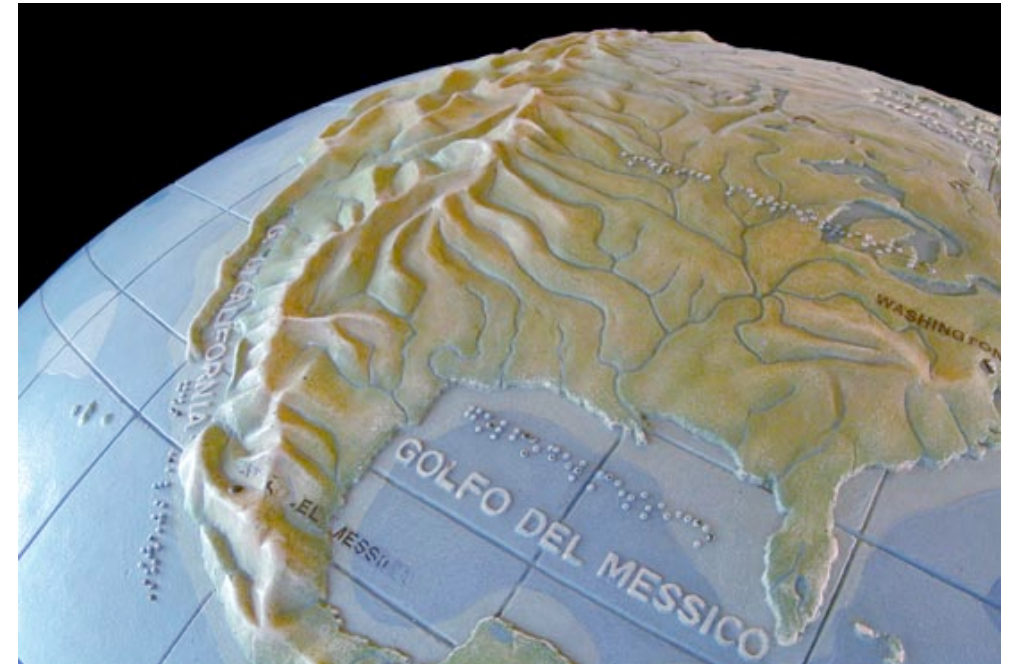
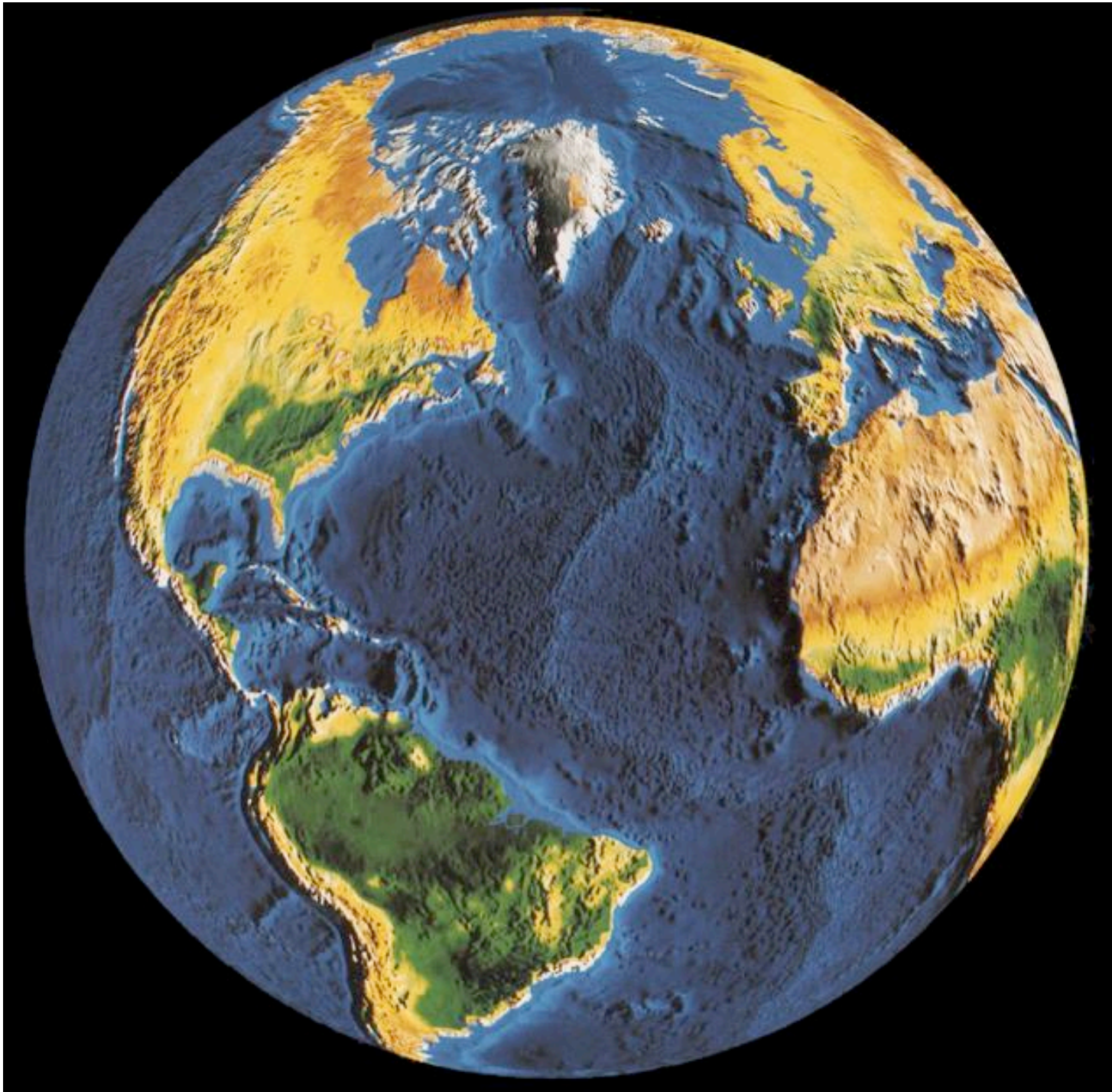


The Oceans

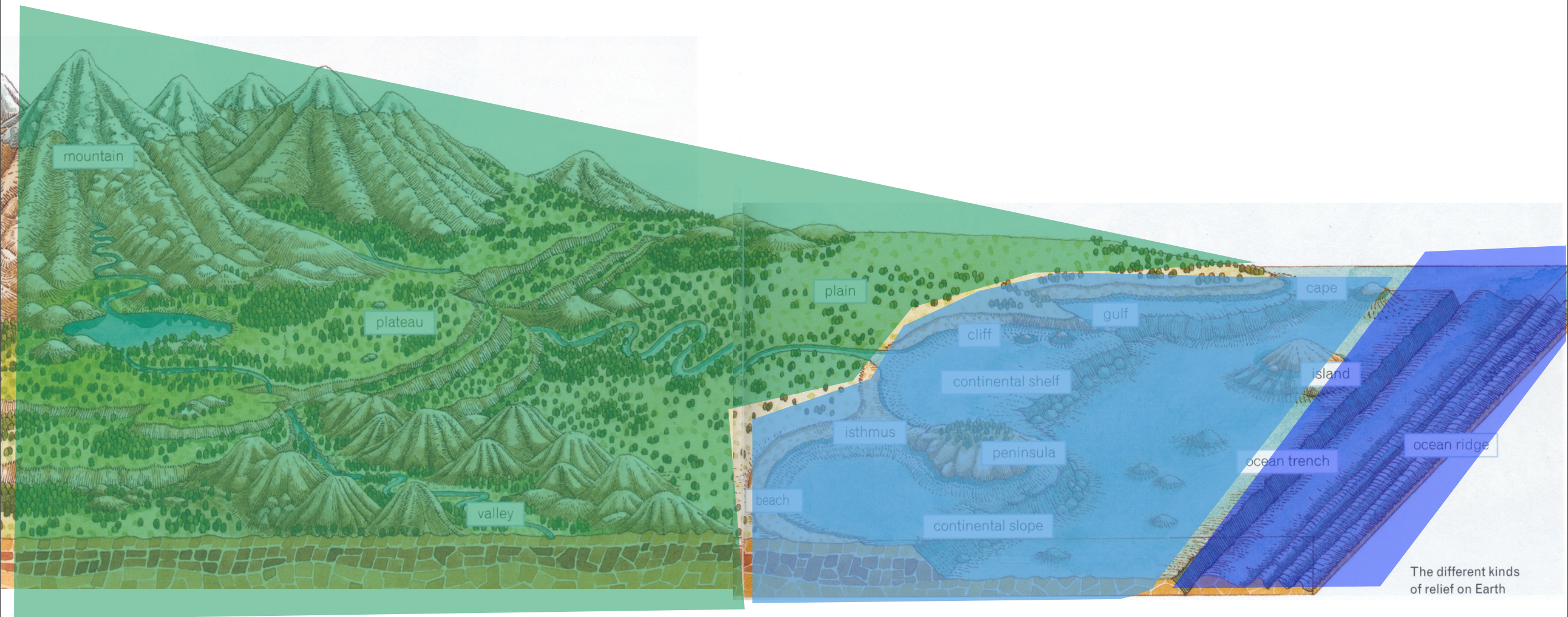
Pacific
Atlantic
Indian
Southern
Artic

2.- What is the Earth ´s relief?

The Earth's surface is not flat.



There are different kinds of relief:



Continental
relief

Coastal
relief

Oceanic
relief

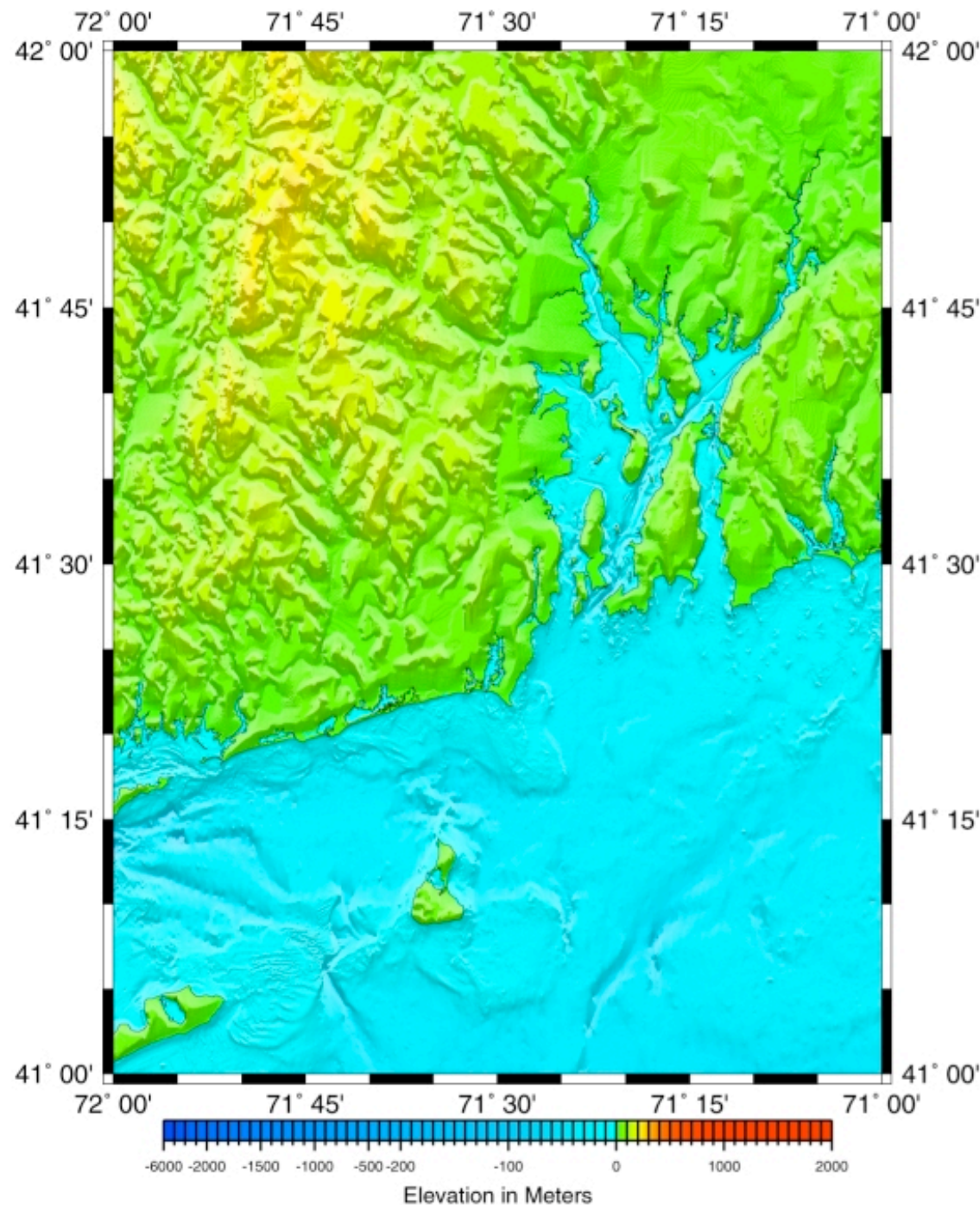
Continental relief

Mountains
Valleys
Plains
Plateaus
Basins



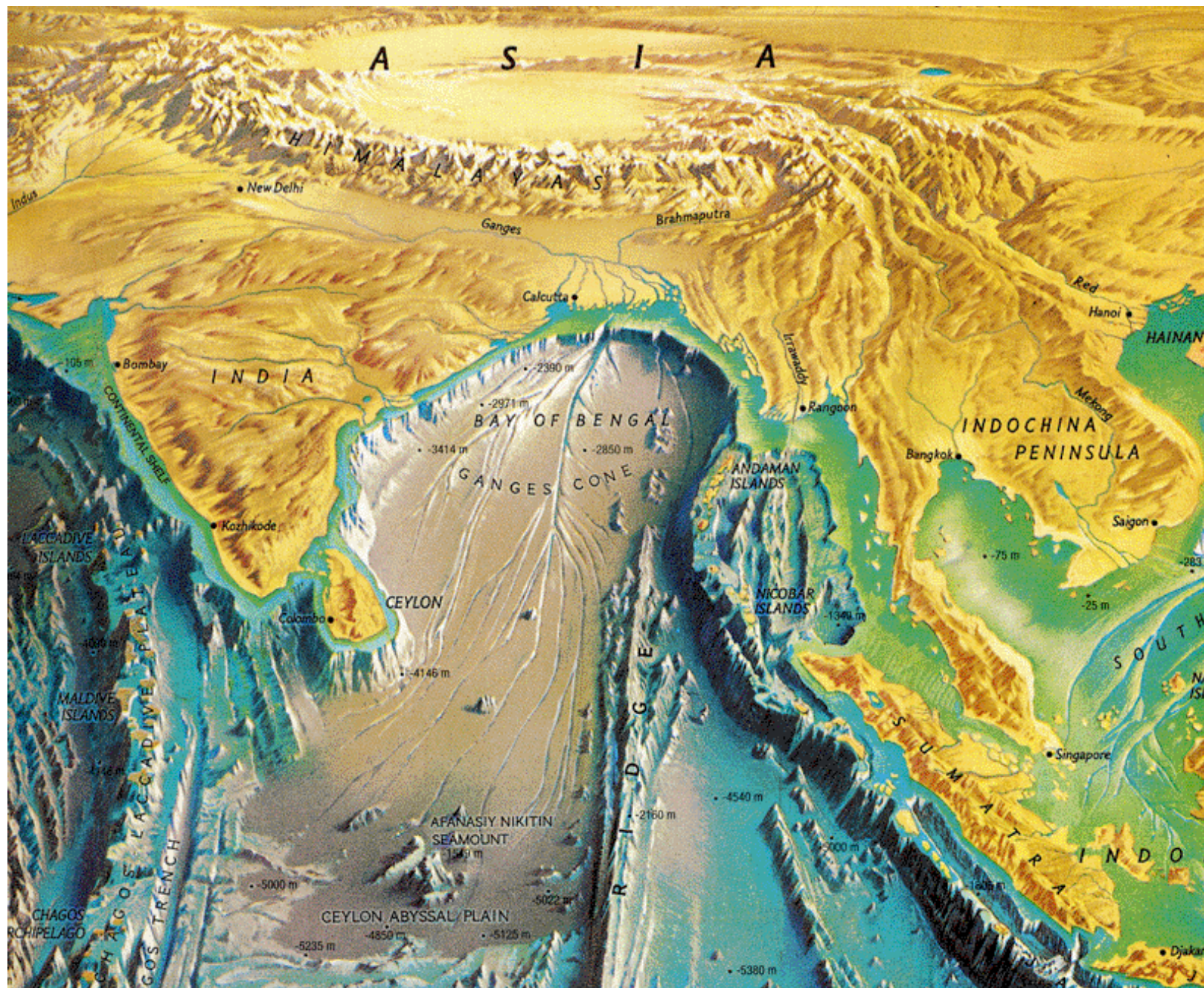
Coastal relief

A.



Peninsula
Isthmus
Cape
Gulf
Bay
Island
Archipelago
Beaches
Cliffs

Oceanic relief



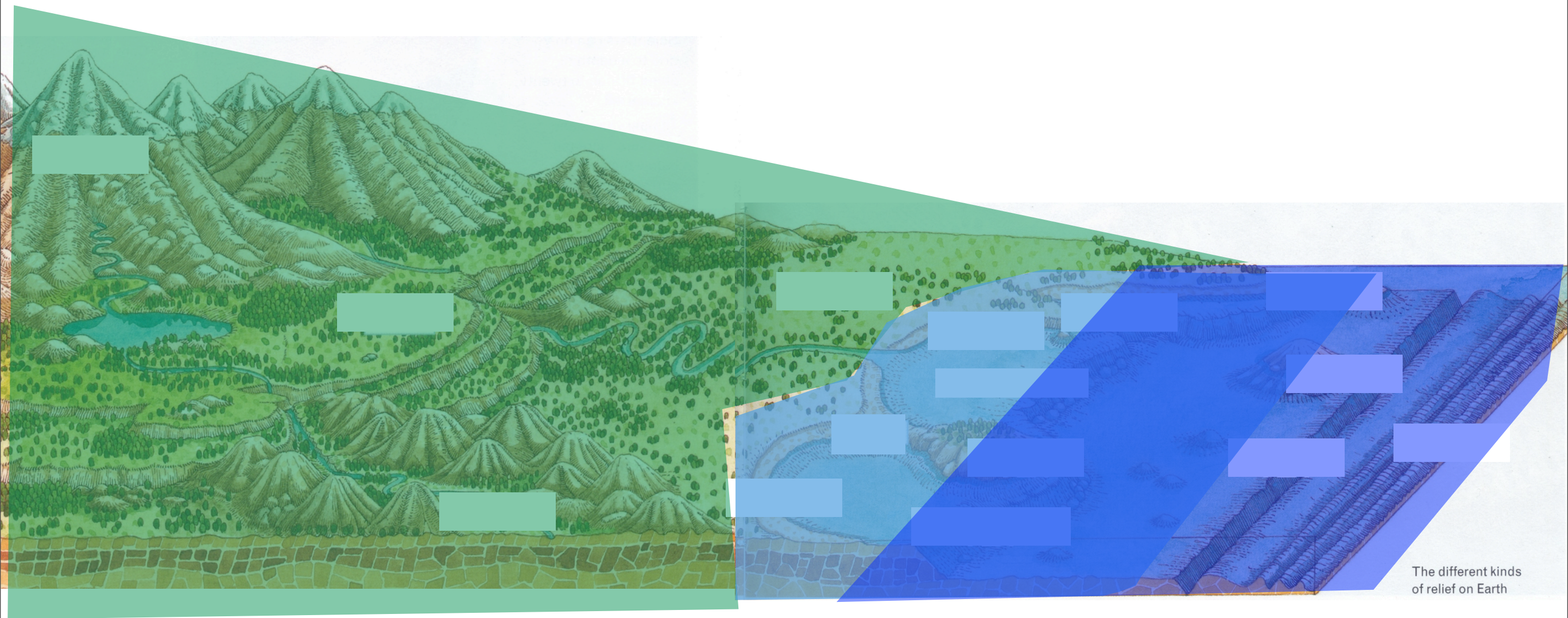
Continental shelves

Continental slopes

Ocean ridges

Ocean trenches

Do you remember the 3 types of relief?



Continental
relief

Coastal
relief

Oceanic
relief

3.- Why do landscapes change?

Changes in relief

The Earth's relief changes continually due to:

EROSION

The fragmentation and dissolution of rocks, soil and mud, which is transported by wind or water.

SEDIMENTATION

The accumulation of sediment (mud, sand or eroded rocks)



Causes of erosion

Erosion is caused by:

Temperature



Water



Wind



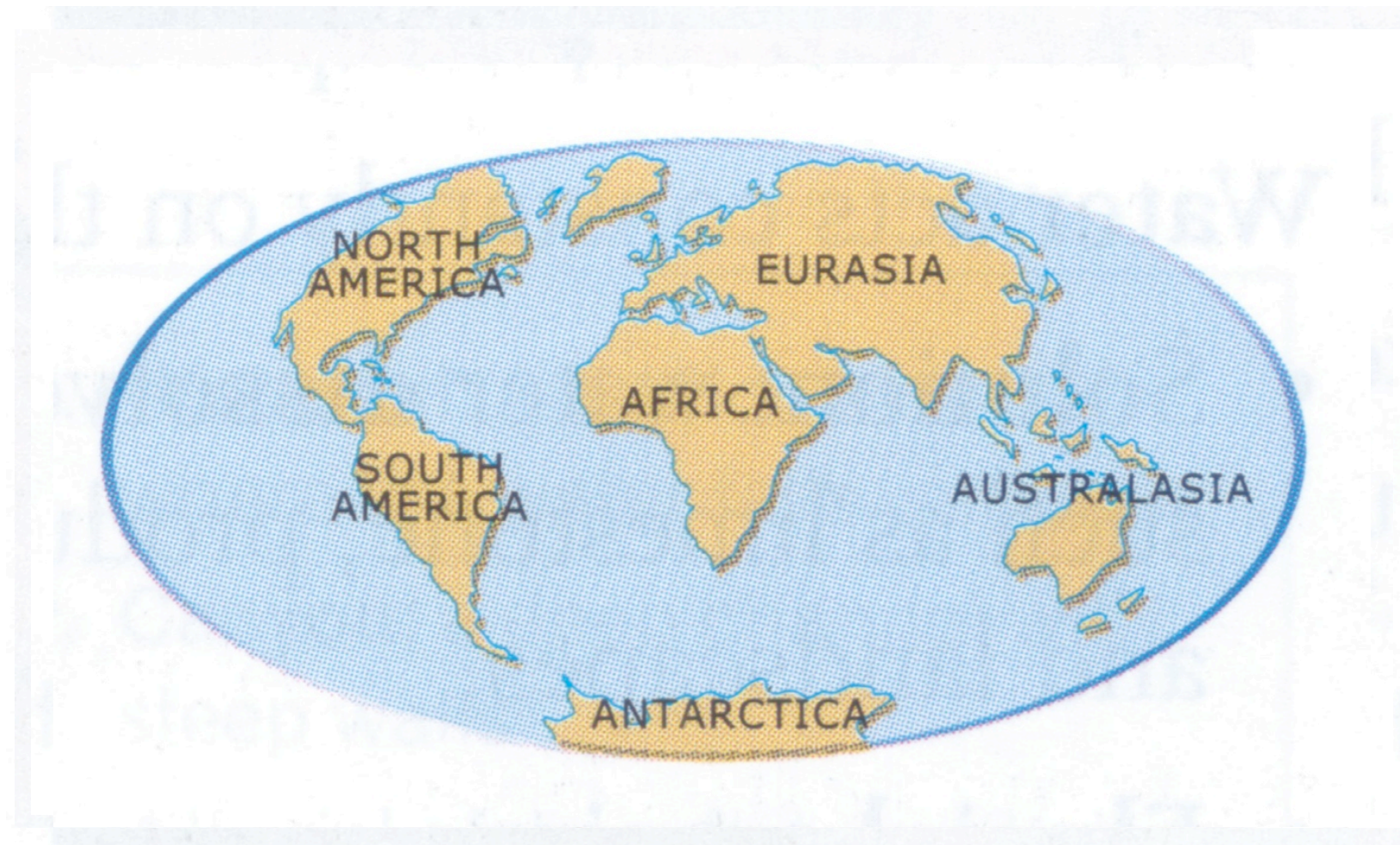
Human beings



4.- How does relief shape our planet?

Continental drift

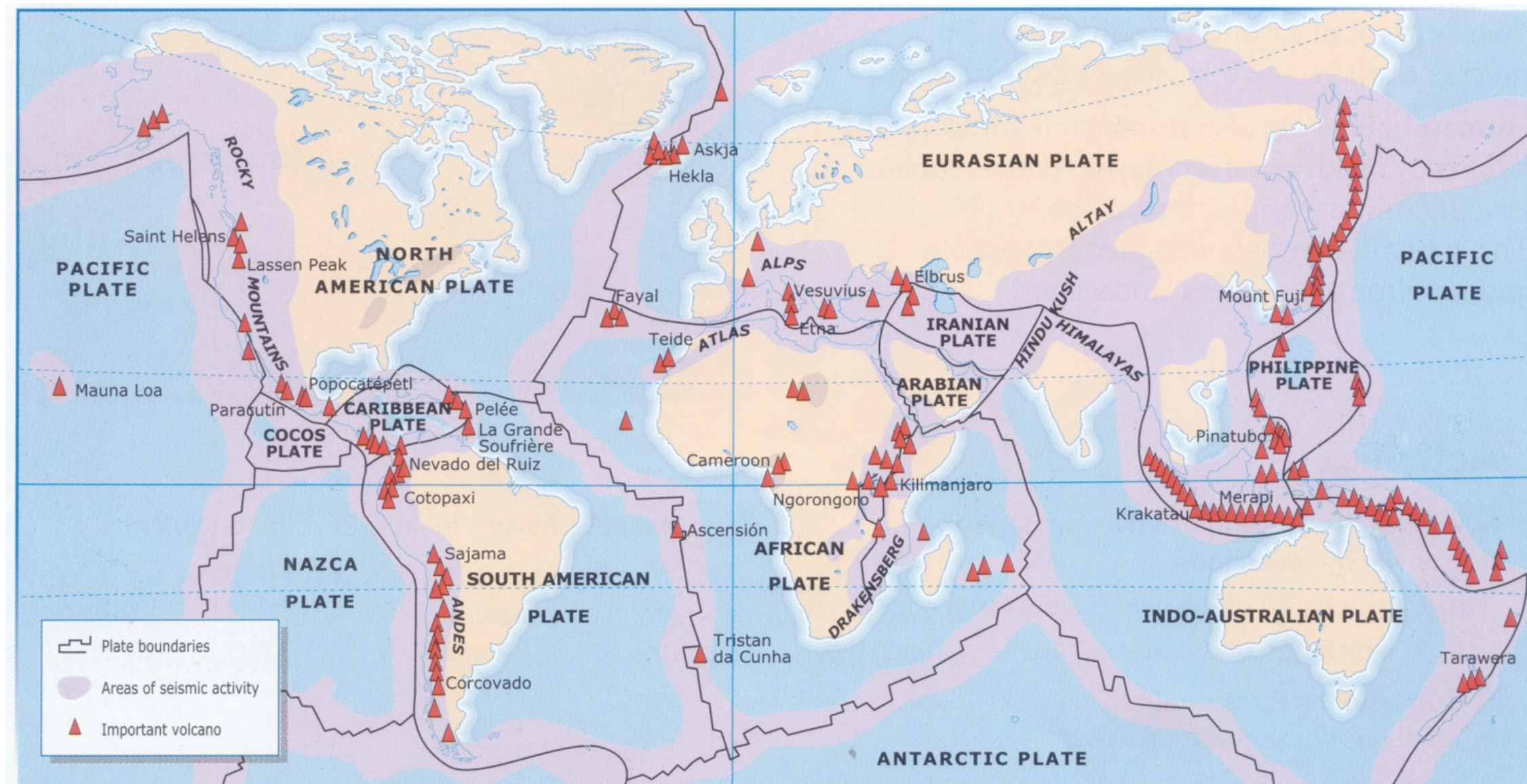
The German scientist Alfred Wegener developed this theory in 1912.



His theory says that there was only one continent, called **Pangea**, which broke up millions of years ago.

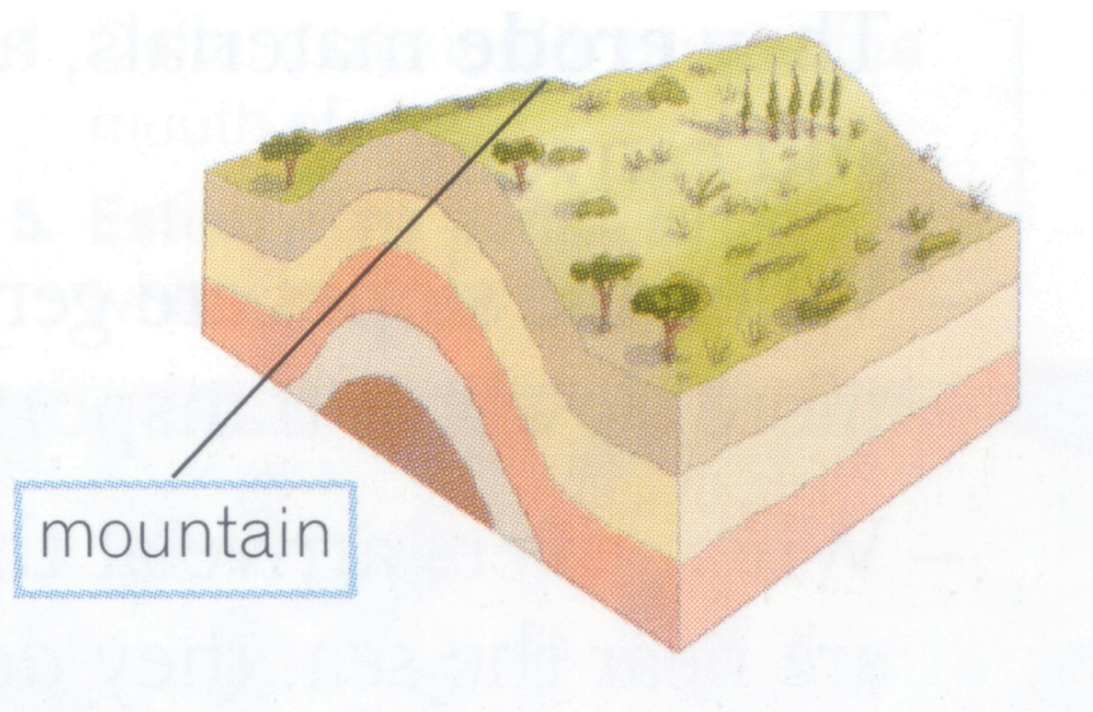
Tectonic plates

The Earth's crust is divided into **tectonic plates**, which move continually (2 to 10 cms. per year).

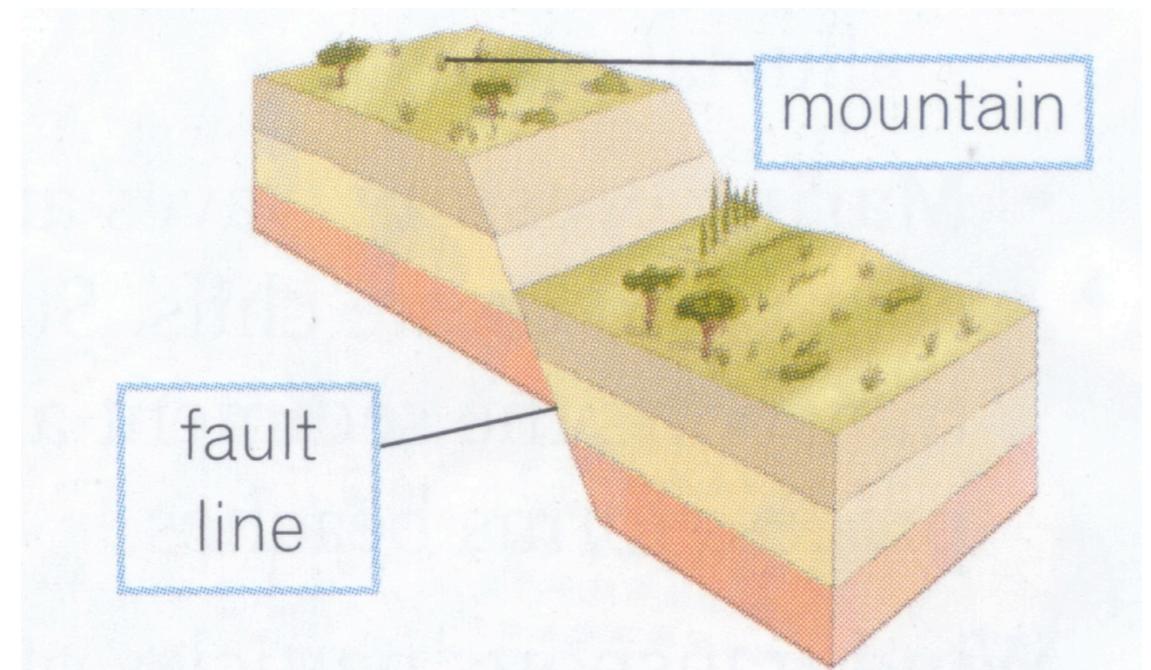


Tectonic plates

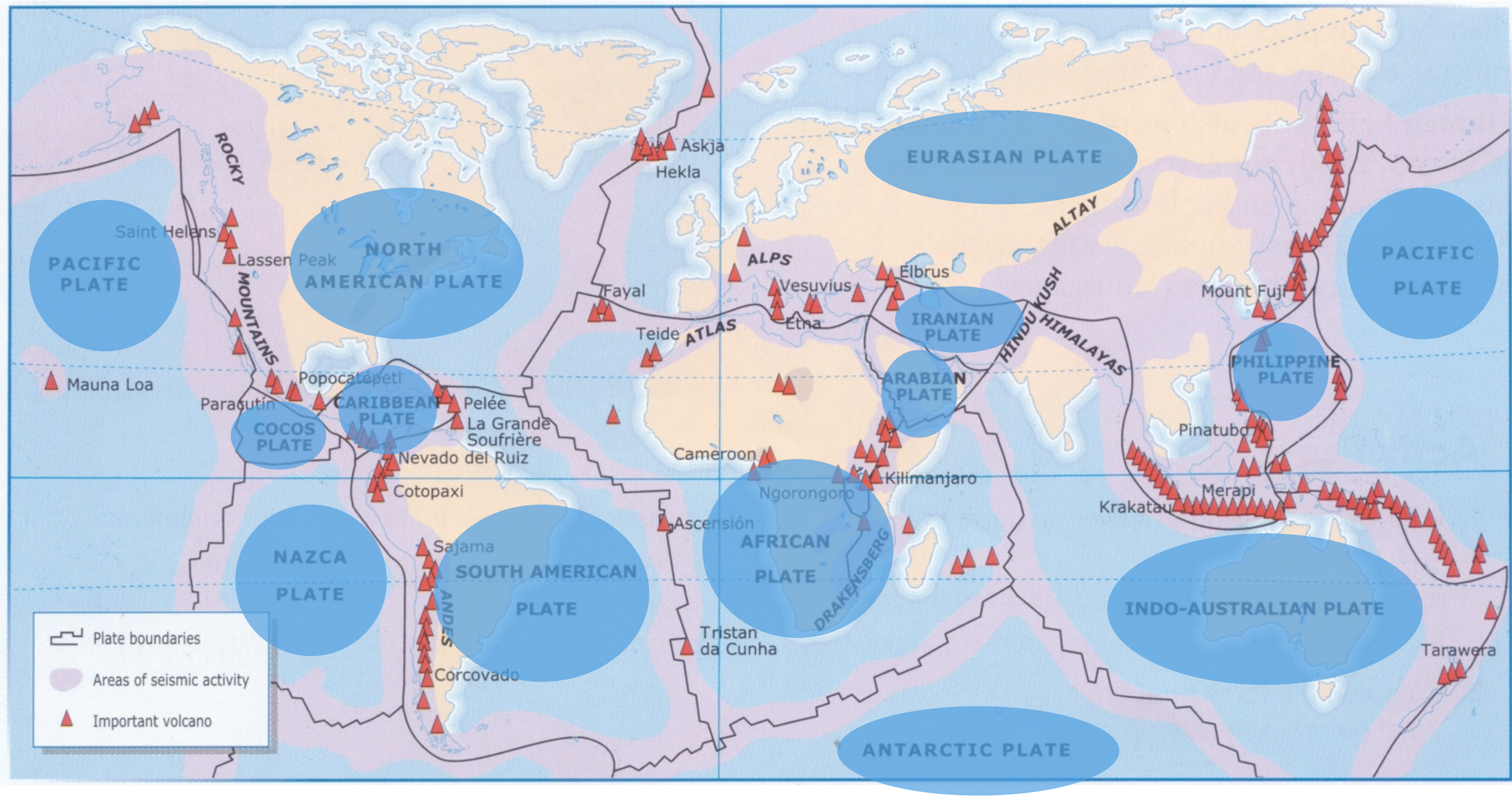
Where plates collide, the Earth's surface often undulates forming **folds**.



If the surface where plates collide is extremely rigid, the crust fractures forming **faults**, and block rise or sink.



Map of the tectonic plates of the world



5.- What are volcanoes and earthquakes?

The movement of tectonic plates can produce...



Volcanoes

and



Earthquakes

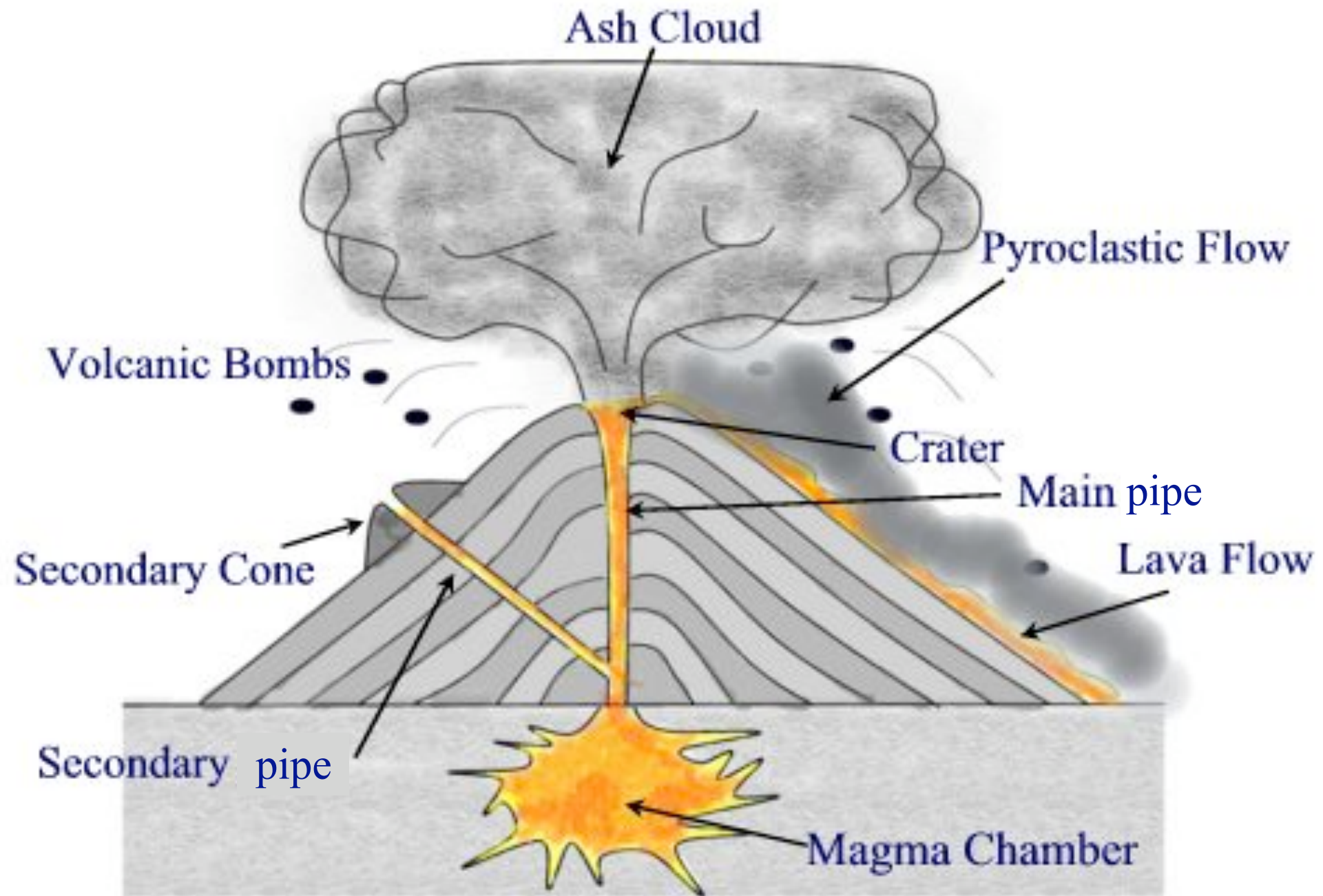


Volcanoes



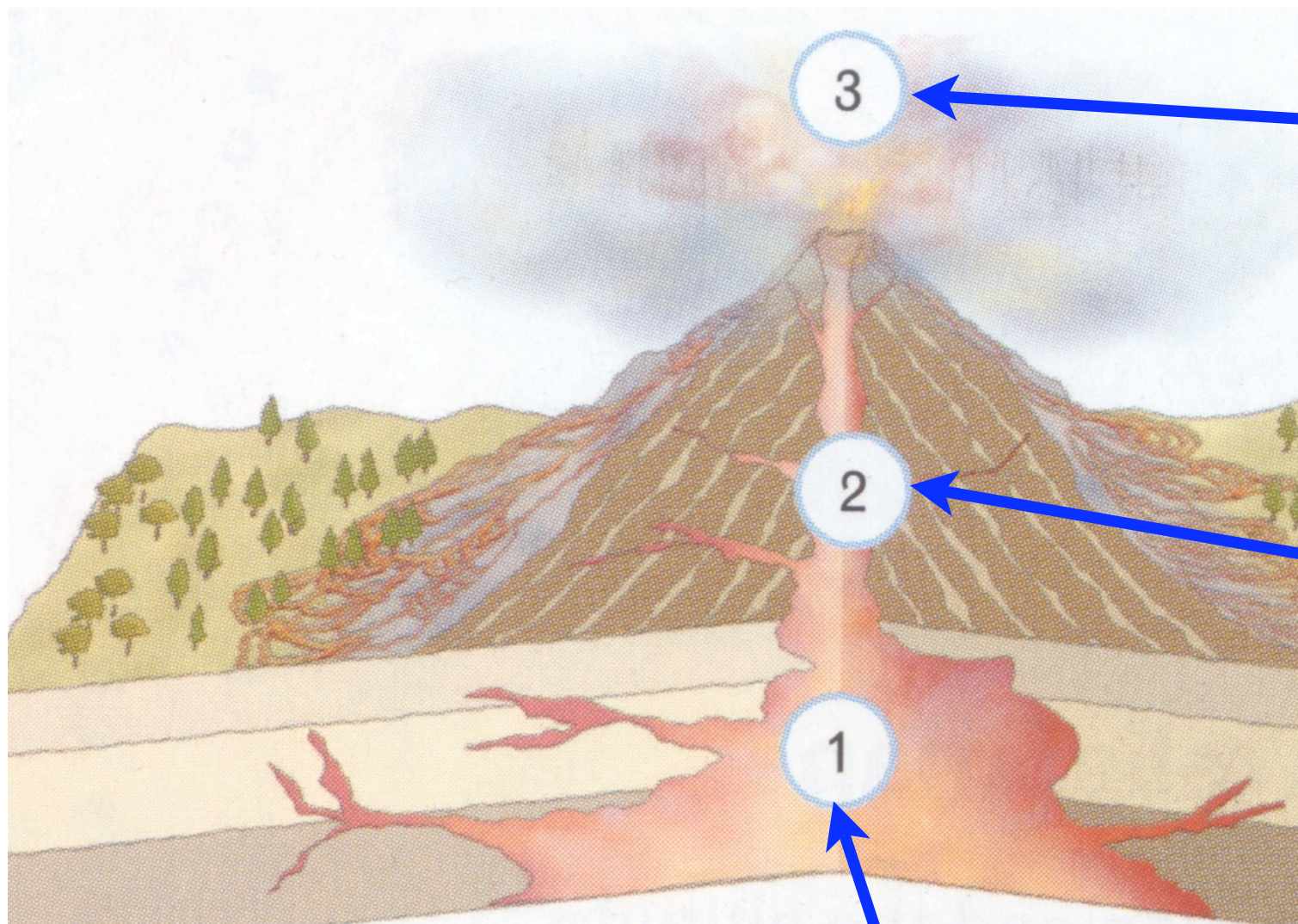
- A volcano is an opening in the surface of the Earth through which **magma**, **ash** and **gases** come out.
- Volcanic cones are the result of lava accumulating on the opening.
- Volcanic eruptions under the sea form islands.
- Volcanoes are generally found on the edge of tectonic plates because this is the weakest part of the earth's crust.
- **Earthquakes**, **geysers** and **hot springs** are all found in the same area as volcanoes.

Structure of a volcano



Main Features of a Volcano

The eruption of a volcano



Lava comes out through a crater

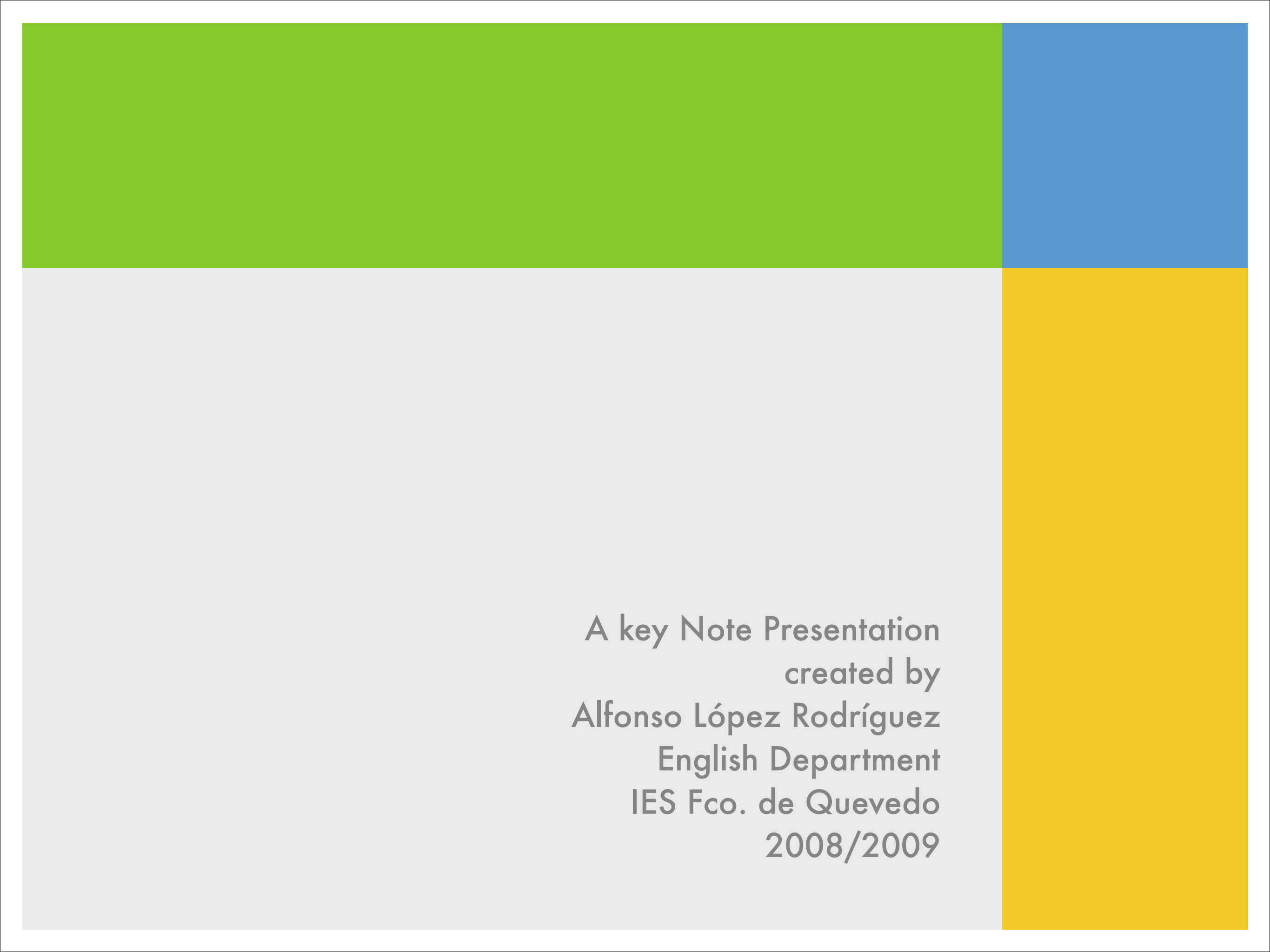
Magma rises through a pipe

Magma is pushed up by the the Earth 's internal forces

Earthquakes

- When two tectonic plates crash, there is a release of energy that makes the ground vibrate. This vibration (violent or unnoticeable) is called **earthquake**.
- The eruption of a volcano or the fall of the roof of an underground cave can also produce small **tremors**.
- When an earthquake is produced on the ocean floor it can produce huge waves called **tsunamis**.





A key Note Presentation
created by
Alfonso López Rodríguez
English Department
IES Fco. de Quevedo
2008/2009