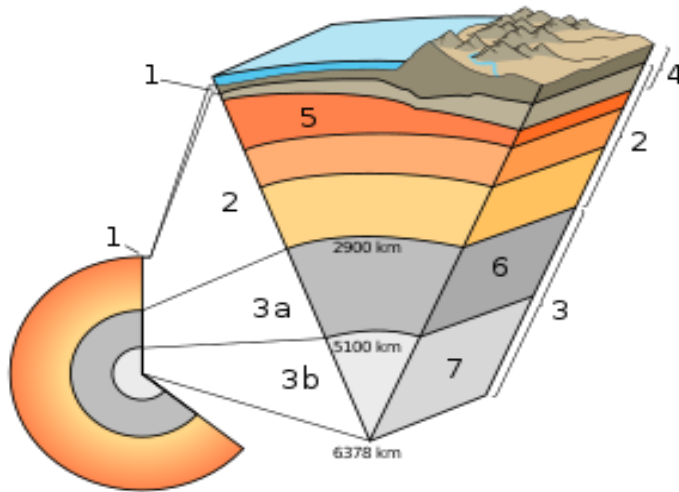


Name here

## IB DP Geography – Mechanisms of Plate Movement



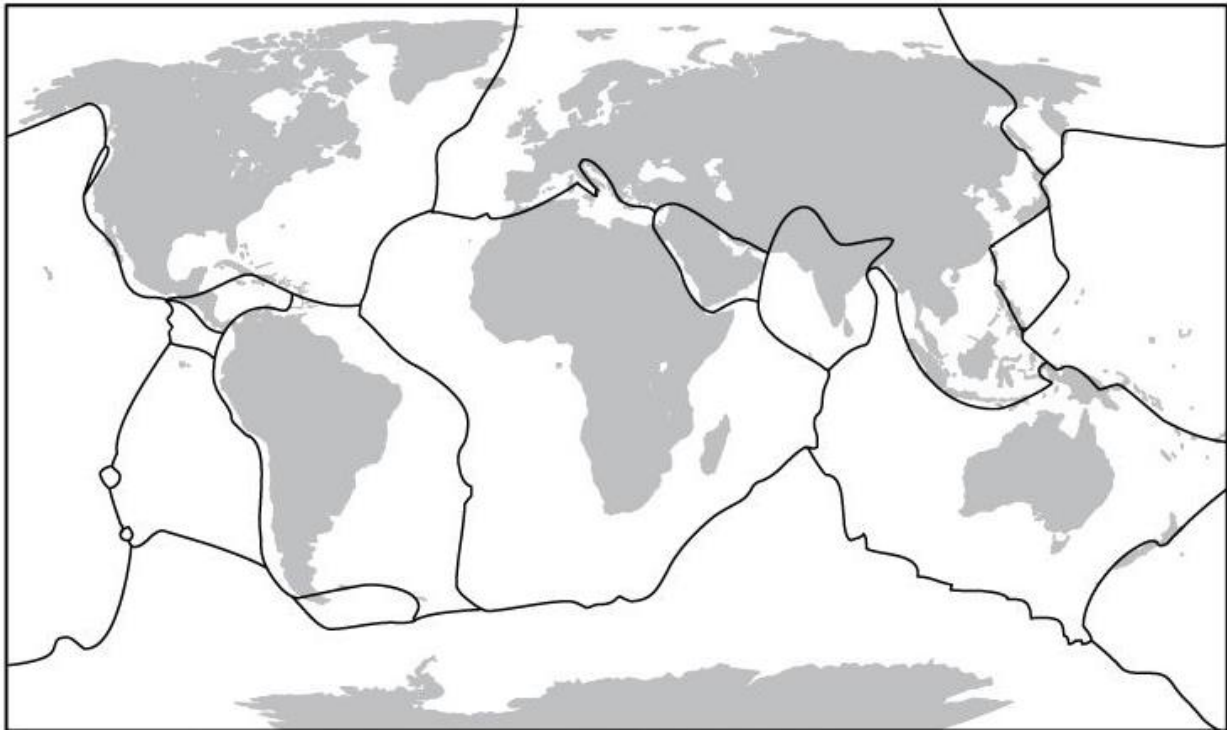
Task 1 – Complete the table below using the image above as a guideline		
Label	Feature	Brief description after further research. Include one piece of data.
1	Crust	
2	Mantle	
3	Core	
3a	Outer Core	
3b	Inner Core	
4	Lithosphere	
5	Asthenosphere	
6	Liquid	
7	Solid	

Name here

**Task 2** – Using your own previous knowledge (and Google if really stuck), complete the map below. To save time, number and print the name on each plate.

Plate tectonics is the theory that Earth's outer shell is divided into several plates that glide over the mantle, the rocky inner layer above the core. The plates act like a hard and rigid shell compared to Earth's mantle. Developed from the 1950s through the 1970s, plate tectonics is the modern version of continental drift, a theory first proposed by scientist Alfred Wegener in 1912.

### Tectonic Plates

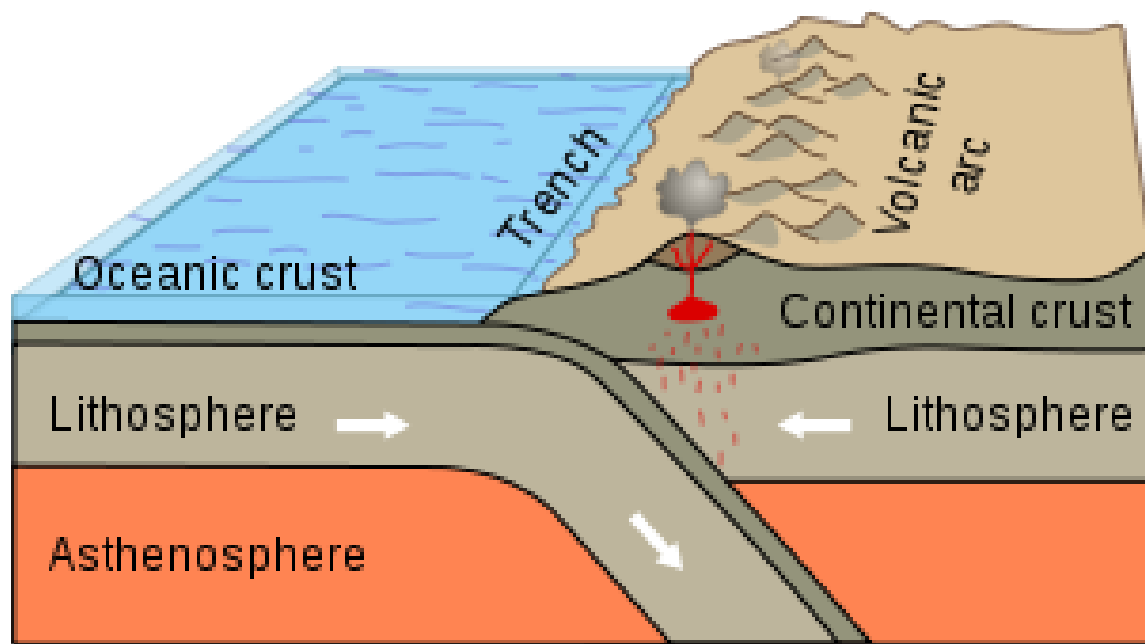


\* Number (or colour code) the tectonic plates listed below, then label them (or colour them) on the map.

- |   |   |   |   |                                       |
|---|---|---|---|---------------------------------------|
| <input type="checkbox"/> Pacific Plate  | <input type="checkbox"/> Arabian Plate    | <input type="checkbox"/> North American Plate | <input type="checkbox"/> Indian Plate     | <input type="checkbox"/> Nazca Plate  |
| <input type="checkbox"/> African Plate  | <input type="checkbox"/> Australian Plate | <input type="checkbox"/> South American Plate | <input type="checkbox"/> Antarctic Plate  | <input type="checkbox"/> Cocos Plate  |
| <input type="checkbox"/> Eurasian Plate | <input type="checkbox"/> Caribbean Plate  | <input type="checkbox"/> Juan de Fuca Plate   | <input type="checkbox"/> Philippine Plate | <input type="checkbox"/> Scotia Plate |

Name here

**Task 3** – Study the diagram below that shows the process of subduction. Using the key word box, complete the exercise below.

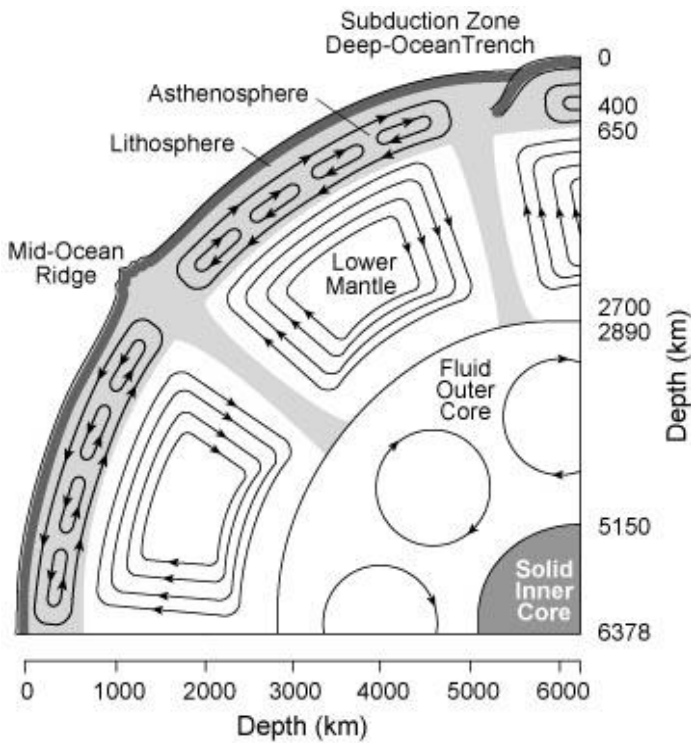


Subduction is a geological process that takes place at \_\_\_\_\_ boundaries of tectonic plates where \_\_\_\_\_ lithospheric plate collides with another plate (continental or oceanic) and is forced or sinks due to \_\_\_\_\_ into the \_\_\_\_\_. The subducting plate \_\_\_\_\_ the rest of the plate behind it. Regions where this process occurs are known as subduction \_\_\_\_\_. Rates of subduction are typically in \_\_\_\_\_ per year, with the average rate of convergence being approximately \_\_\_\_\_ centimeters per year along most plate boundaries.

### Key Words

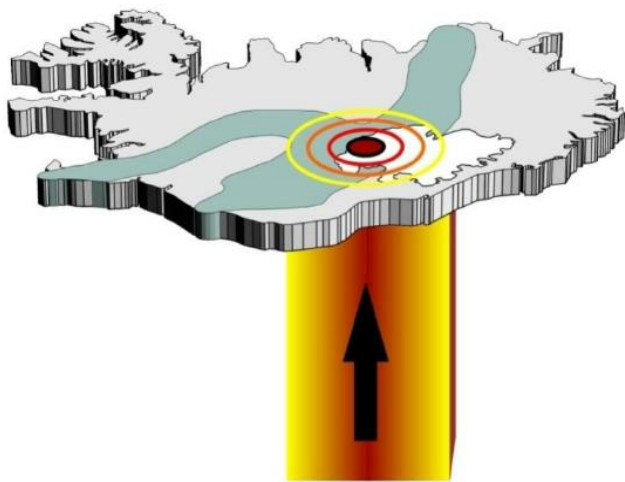
2-8 zones gravity drags convergent mantle centimetres oceanic

Name here



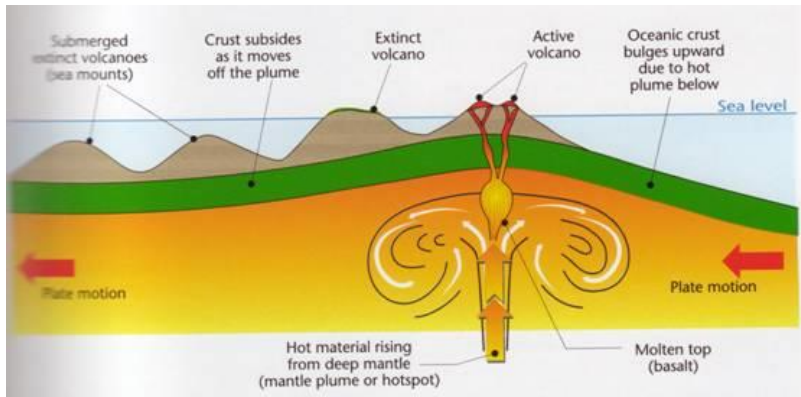
**Task 4** - Watch the second video on the website and make notes below on how large-scale convection currents in the mantle work

Blank area for notes on large-scale convection currents in the mantle.



**Task 5** - Watch the third video on the website and make notes below on how mantle plumes work.

Blank area for notes on how mantle plumes work.

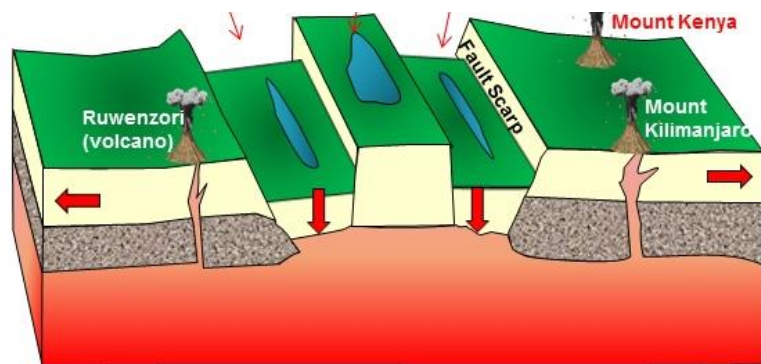
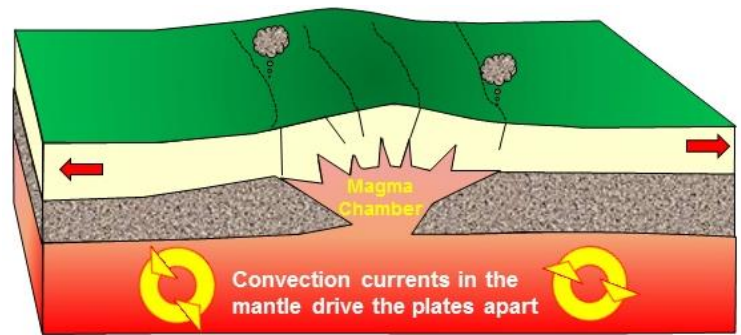


[Source](#)

[html](#)

Name here

## Rifting



**Task 6** - Add the following labels to the diagrams above in the right place and in the correct order:

- Plates continue to move apart as a rift valley is formed.
- Tensional Faults and cracks appear in the surface allowing outgassing and steam eruptions.
- Upwarping of the crust takes place as magma rises and the plates are driven apart
- Crust above the current slumps into uneven sections

**Task 7** - Add the following labels to the diagrams above in the right place:

- Continental Crust
- Asthenosphere
- Mantle
- Movement of plates
- Upwelling magma creates volcanoes
- Western Rift Valley with lakes like Tanganyika
- Kenyan Rift in Eastern Rift Valley
- Central plateau sinks to give Lake Victoria.

Credit: Thanks to Rob Gamesby and Cool Geography for the graphics above.

<http://www.ibgeographypods.org/1-geophysical-systems.html>