

# Plate boundaries: What landforms happen where?

**How to use:** Follow the flow chart to choose which 2 plates are meeting; 2 oceanic plates, 2 continental plates, or one of each. Next, decide how they are meeting, are they moving towards each other, away from each other or side by side. Once you have done that, follow the arrow and read the text and diagrams to find out more about what landforms and effects there will be at that boundary.

Which 2 plates are meeting?

2 continental plates

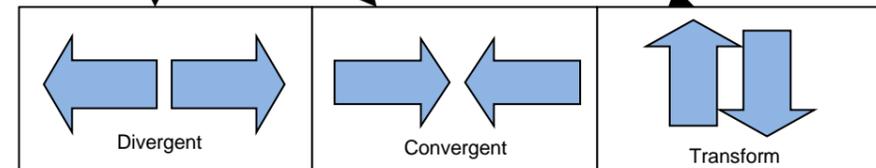
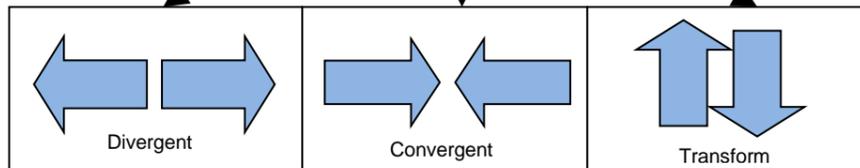
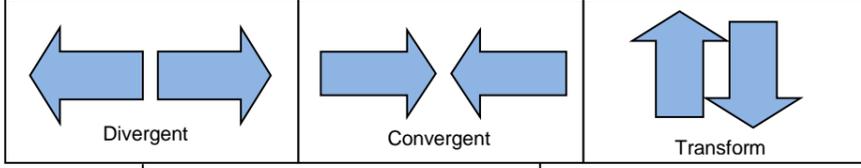
1 oceanic and continental plate

2 oceanic plates

What kind of boundary?  
(How do they meet?)

What kind of boundary?  
(How do they meet?)

What kind of boundary?  
(How do they meet?)



**Shield volcanoes** are formed as the plates move apart; lava comes up, and cools down.



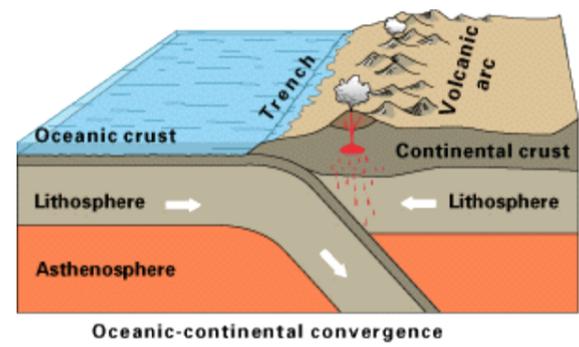
The 2 plates crumple like 2 cars crashing into each other and **Fold Mountains** are formed for example the Himalayas. There will also be **earthquakes** along the plate margin. This is also referred to as a **collision boundary**.



**Earthquakes** occur along the margin as a result of the plates grinding together, but no major landforms are made.

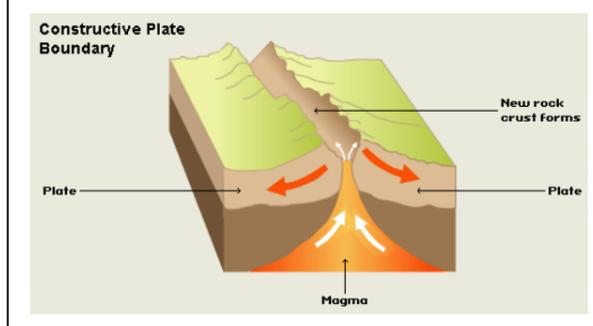
As the plates move lava comes up and cools as it meets the water. This causes **new crust to be formed**. **Small volcanoes** can also be formed.

As the 2 plates meet, the ocean plate sinks under the continental plate because it is denser. The oceanic plate melts, and **composite volcanoes** are formed along the margin. **Earthquakes** can also occur here because the 2 plates are clashing. **A trench** may also form at the margin.



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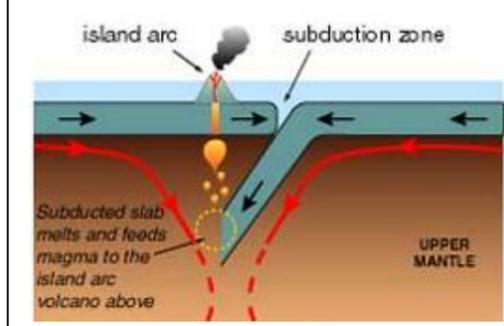
As the plates move apart lava erupts into the ocean cooling and forming **new crust**. This can also form **ocean ridges** where the lava that comes up cools and turns into underwater mountains. The mid-Atlantic ridge is a good example of ridges forming.



**Earthquakes** occur along the margin as a result of the plates grinding together, but no major landforms are made.

In addition because the plates are underwater this can lead to **tsunamis** when the earthquakes displace water above.

At a destructive boundary of 2 oceanic plates an ocean trench is formed as one plate is pushed below the other. The plate that is pushed under is melted by the mantle. **Volcanoes** can also be formed as the plate being pushed under causes the other plate to be pushed up. (See diagram)



**Earthquakes** can also occur here, and because the plates are underwater this can lead to **tsunami's** when the earthquakes displace water above.