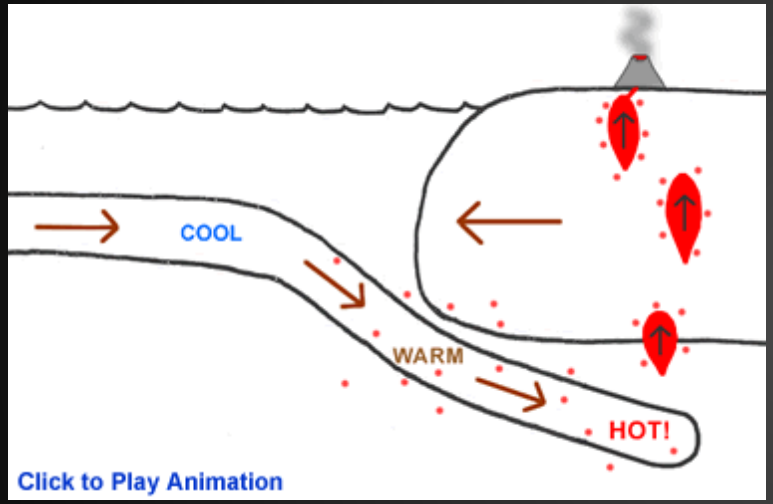
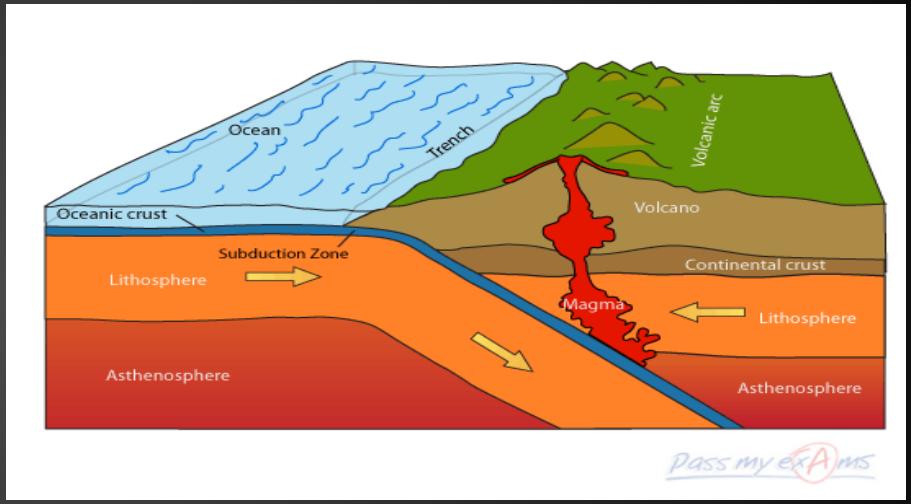
Convergent Boundary-

Oceanic and Continental collision

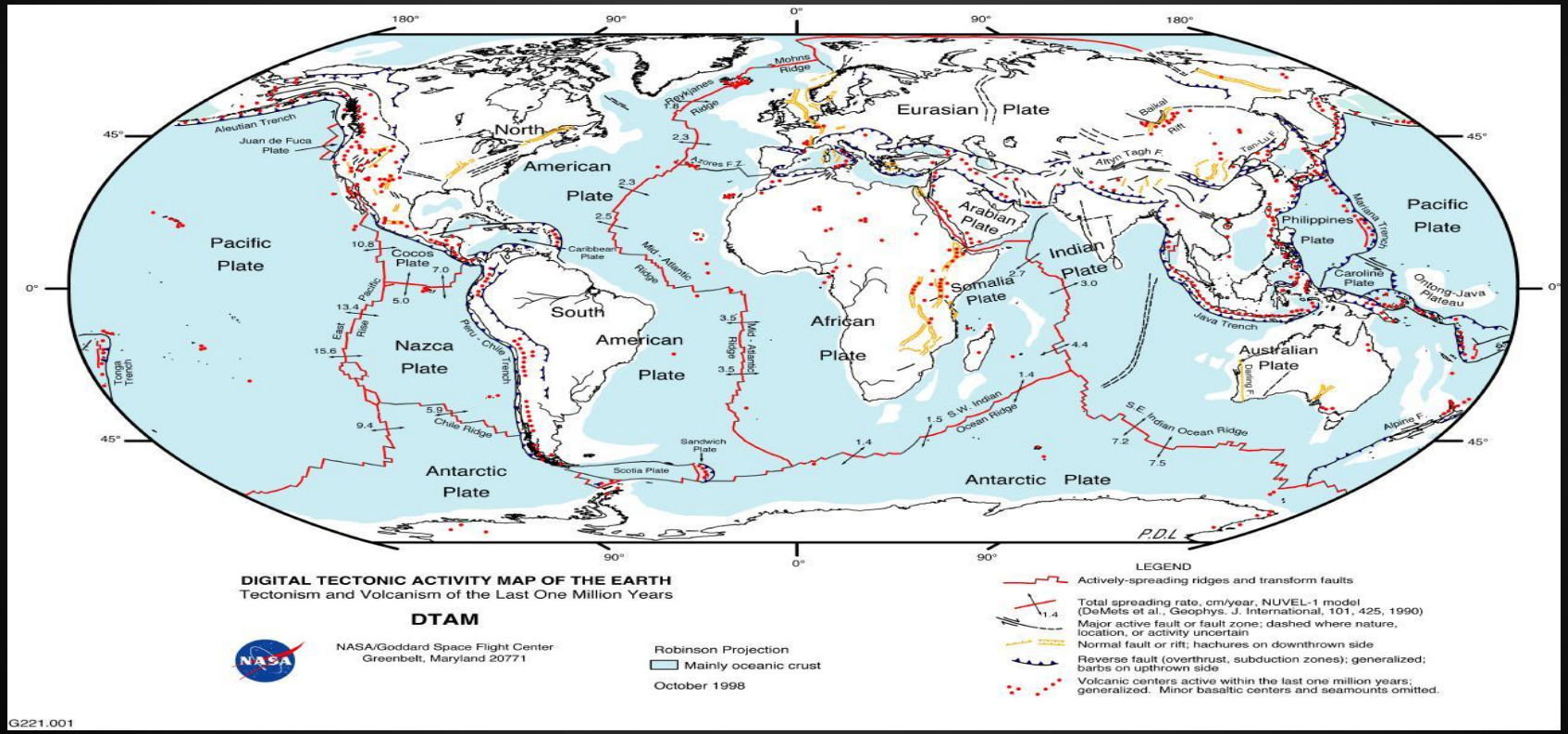
Convergent Boundary oceanic and continental collision is continental and oceanic plates collide the thinner and more dense oceanic plate is overridden by the thicker and less dense continental plate. Subduction happens between the two plates and happen where ocean trenches, mountain ranges and island arc form.

Images


COOL
WARM
HOT!
Click to Play Animation


Ocean
Trench
Volcanic arc
Oceanic crust
Volcano
Subduction Zone
Continental crust
Lithosphere
Magma
Lithosphere
Asthenosphere
Asthenosphere
Pass my exAms

Map


180°
90°
0°
90°
180°
45°
45°
0°
45°
45°
Aleutian Trench
Juan de Fuca Plate
North American Plate
Reykjanes Ridge
Mohns Ridge
Eurasian Plate
Baikal Rift
Hindu Kush F.
Tan-Lu F.
Azores F.T.
Arabian Plate
Pacific Plate
Philippines Plate
Marianas Trench
Caroline Plate
Ontong-Java Plateau
Cocos Plate
Caribbean Plate
Mid - Atlantic Ridge
Indian Plate
Somalia Plate
Java Trench
East Pacific Rise
Nazca Plate
South American Plate
Peru - Chile Trench
African Plate
Australian Plate
Tonga Trench
Chile Ridge
Sandwich Plate
Scotia Plate
S.W. Indian Ocean Ridge
S.E. Indian Ocean Ridge
Alpine F.
Antarctic Plate
Antarctic Plate
P.D.L
DIGITAL TECTONIC ACTIVITY MAP OF THE EARTH
Tectonism and Volcanism of the Last One Million Years
DTAM
NASA/Goddard Space Flight Center
Greenbelt, Maryland 20771
Robinson Projection
Mainly oceanic crust
October 1998
LEGEND
Actively-spreading ridges and transform faults
Total spreading rate, cm/year, NUVEL-1 model (DeMets et al., Geophys. J. International, 101, 425, 1990)
Major active fault or fault zone; dashed where nature, location, or activity uncertain
Normal fault or rift; hachures on downthrown side
Reverse fault (overthrust, subduction zones); generalized; barbs on upthrown side
Volcanic centers active within the last one million years; generalized. Minor basaltic centers and seamounts omitted.
G221.001

Effects

When an oceanic plate collides with a continental plate the crust forming the oceanic under the continental crust. This is because the rocks that form the oceanic crust are denser and thinner . The process by which the oceanic crust is pulled under the continental crust is called subduction and the zone at which this occurs at the plate boundaries. At the subduction zone where the oceanic crust sinks beneath the continental crust a deep oceanic trench or valley is created. These can be many of thousands of kilometres long and 8 to 10 kilometres deep making them the deepest part of the ocean floor.

Link

http://www.geolsoc.org.uk/Plate-Tectonics/Chap3-Plate-Margins/Convergent/Oceanic-oceanic-collision

Form

Oceanic and continental plate collisions result in mountain and volcano formation. This is found at the boundary between the South American continental plate and the Nazca oceanic plate. The South American continental plate is being lifted over the subducted Nazca oceanic plate creating the Andes mountain range.