

Creating Landforms

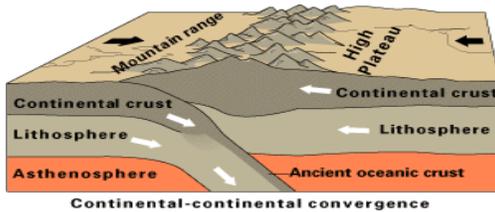
Linking to Tectonics

<p>Building Landscape</p> <p>Main forces responsible for land building:</p> <ol style="list-style-type: none">1) Folding2) Faulting3) Volcanism
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<p>Forces That Destroy Landscape</p> <ol style="list-style-type: none">1) Weathering2) Erosion
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Folding

- ❖ When plates move during earthquakes, sometimes mountains are formed by horizontal compression (squeezing together) of rock layers as continents come together causing the rock layers to buckle and fold.

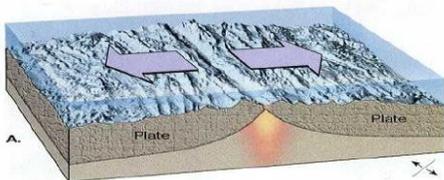


http://en.wikipedia.org/wiki/Convergent_boundary

See how one plate (right side) is folding because two plates are colliding.

Faulting

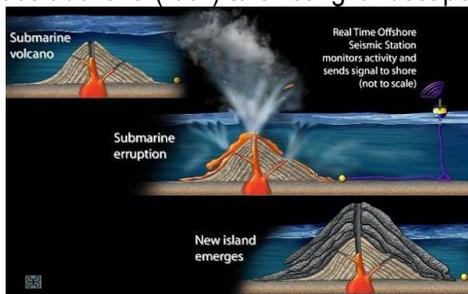
- ❖ Again, when plates move during earthquakes, sometimes Faulting occurs when the crust cracks where two plates meet.
- ❖ Some mountains are formed by the rising and tilting of large blocks of the earth's crust; can cause land to pop up creating mountain OR can create valleys
- ❖ These movements occur along fractures in the earth's crust called faults (faulting occurs)



<http://supercronopio.es.ucl.ac.uk/~crlb/COURSES/117-IntroductiontoGeology/Lec19/lec19a.html>

Volcanism

- ❖ Volcanoes add lava (rock) to existing landscape, eventually creating mountains



Here, cooling lava from a submarine eruption creates land which emerges from the ocean as a new island.

<http://www.environmentalgraffiti.com/featured/incredible-underwater-volcanoes/7827?image=1>

Erosion and Weathering

- ❖ Weathering is what breaks the rock into smaller pieces.
- ❖ Erosion is the actual removal of the rock pieces (think of wiping dirt off a table)
- ❖ There are 3 main forces of weathering/erosion:

Wind



Blows small pieces of rock or dirt around; these pieces can hit other rock, further eroding it (think sandblaster!!!)

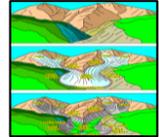
Water



Water in many forms breaks down the landscape.
→ Rain
→ Water falling (dripping and water falls)
→ Waves

Ice

When water freezes & turns into ice, it expands almost 10 %. (*Think about a can of pop that explodes in the freezer.*)



Nature's Freeze/Thaw Cycle: When water freezes in a crack in the rock it expands; the cycle weakens the rock and eventually causes it to crack and break off (*think about pot-holes on the road*)