

## 11.1 - Where Mountains form.

1 Where do most of the world's mountains form?

① Most mountains form at convergent plate boundaries, where one plate meets another plate going towards each other.

② Describe a passive continental margin.

② Passive continental margins are stable areas because they do not occur at plate boundaries. This is where large amounts of sediment can accumulate, from weathering of mountains.

③ Describe an active continental margin.

③ Active continental margins occur at plate boundaries. When two plates move toward one another and collide they can create mountains. Also ~~to~~ if one plate subducts under the other plate, the subducting plate will push up the overriding plate to make mountains.

## 11.2 - How mountains form?

① Describe the different ways that rocks respond to stress. Compression occurs when rock layers are squeezed inward. Compression makes rock layers thicker and shorter.

Tension occurs when rock layers are being stretched. The tension tends to make the rock layer thinner, and longer.

Shear Stress occurs when two rock layers are being pushed in two different directions. Shear stress tends to distort the shape of rocks.

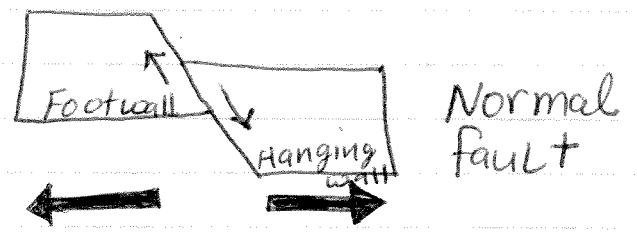
2 Compare and Contrast an anticline and a syncline.

An anticline is an upfold of rock layers. The syncline is a downfold of rock layers. The two sides of a fold are called limbs.

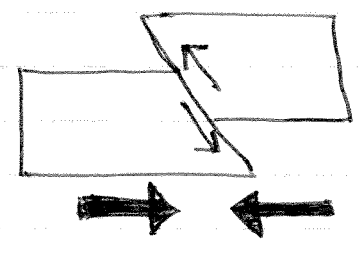
11.2

③ Explain the difference between a normal fault and a reverse fault.

A normal fault occurs where the tension is pulling the crust apart so the hanging wall moves down with respect to the foot wall.

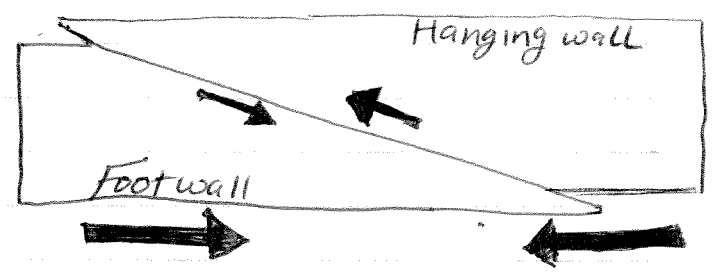


A Reverse fault occurs when the compression pushes the crust together so the hanging wall moves up.



④ What is a thrust fault?

A Reverse fault where the fault plane is very shallow less than  $45^\circ$  from the horizontal

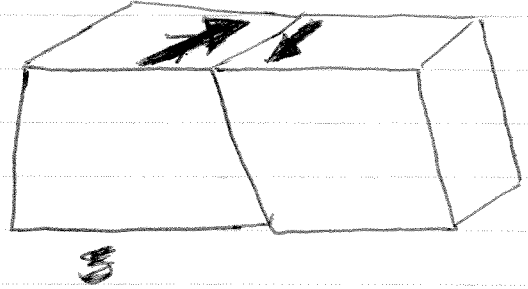


11.2

⑤ ~~What is a thrust fault?~~

Describe the movement at a Strike-slip fault.

The rocks on opposite sides of the fault move past each other horizontally.



6. What is the difference between a joint and a fault?

A joint is a crack in the bedrock without any apparent movement. A fault is also a crack in the bedrock but the rocks on either side of the fault show movement.

## 11.3 - Types of Mountains

1. What types of mountains form when two landmasses collide?

When 2 landmasses collide, compression causes the rocks to form folded mountains.

② What is a dome mountain?

A dome mountain is formed when igneous rocks (molten magma) pushes up rock layers to form a dome.

③ Where do volcanic mountains tend to form?

Volcanic mountains form near a subduction boundary as this process releases magma ~~and~~ which comes up through cracks caused by uplifting forces.

④ How do fault block mountains form?

~~When tension spreads out the rock and makes it crack~~

Earth's crust is slowly uplifted, this causes the crust to stretch and crack forming normal faults. As the uplift continues whole sections of crust are lifted or pushed up into fault block mountains.

⑤ How is compression involved in forming folded mountains?

Compression pushes layers of rocks from the sides making them thicker. More compression will begin to push up the middle of all the layers eventually making folds in the rocks. Over time the folds will grow as the force of compression grows.