

Minerals, Gold mining, Yanacocha, Peru
Yuncan, locals displaced, clean energy
potatoes, terraces, llamas, poor soils
Machu Picchu, Inca Trail, Skiing, footpath erosion, raises money
Tourism
Mining
Farming
HEP
Uses
Created where plates COLLIDE and rocks crumple UP and DOWN

High altitude, poor soils, difficult communications, low temperatures

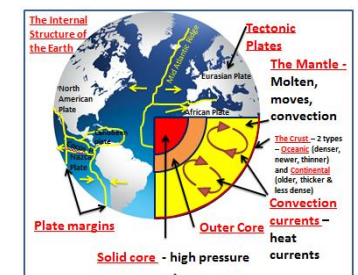
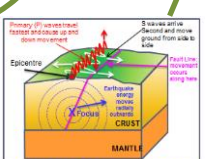
- 1 • One plate SUBDUCTED under continental
- 2 • Continental plate dragged down too
- 3 • stress becomes too much and the upper plate snaps back
- 4 • The movement of the sea bed upwards moves water above
- 5 • The uplifted water collapses and rushes out

Effects
 Killed over 220,000 people.
 650,000 people were seriously injured
 Schools, hospitals and roads wiped out.
 Thailand Indonesia

Responses
 Short term - UK raised at least £32 million
 Water purification equipment
 Dog teams and aid

Long term
 Action Aid -gave Psychological counselling,
 UN trained 140 boat builders and supplied 200 boats.
 Early warning system now in place

Pressure builds
 Pressure is released as earthquake energy



The Restless Earth

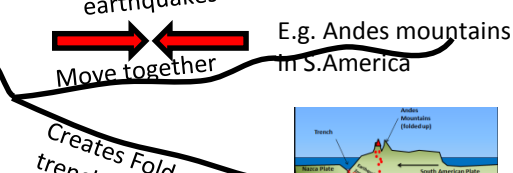
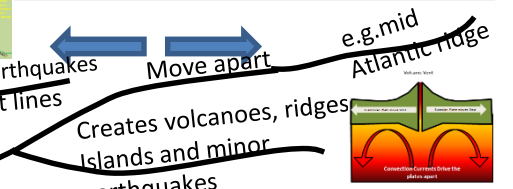
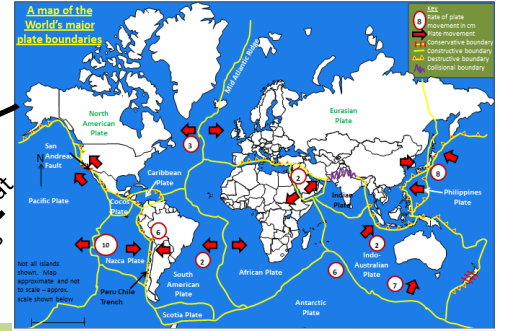
Causes
 Plates move past each other
 Friction makes plates "stick"
 Pressure builds

Factors affecting
 Depth
 Rock type
 Strength
 Population density

CONTRASTS
 Rare, have a caldera (depression)
 Kobe
 Haiti

Earthquakes
 Richter - scientific, energy X31, waves X10
 Mercalli - Describes, 12 points

Plate boundaries
 Location
 Conservative
 Move side by side at different speeds
 Slow
 Fast
 Creates earthquakes along fault lines
 Constructive
 Move apart
 Creates volcanoes, ridges, islands and minor earthquakes
 Destructive
 Move together
 Creates Fold mountains, trenches, volcanoes, earthquakes
 e.g. mid Atlantic ridge
 e.g. Andes mountains in S. America



Volcanoes
 2 major types
 Strato
 Steeper, layers of ash and lava
 Lava is viscous and gaseous so explodes
 Shield
 Lower, wider, layers of runny lava
 Lava is runny so goes far
 Pinatubo
 Evacuations of 1 million people
 Predicted - seismographs, helicopters, sulphur dioxide meters
 Response - shelters, aid, resettlement
 Only 847 deaths, loss of many businesses
 650,000 job losses
 1.2 million homeless

Yellowstone - would
 • cool climate by -6°C
 • damage crops
 • 70,000+ deaths direct
 • Great plains covered in ash
 • Air travel affected

316,000 deaths
 Millions homeless
 Textiles industry lost
 280,000 buildings destroyed
 Response SLOW and external

5,000+ deaths
 300,000 homeless
 Port destroyed
 100,000 buildings destroyed
 Response faster and internal