



The San Andreas Fault, California. This is a transform fault as the plates are sliding past each other.

1



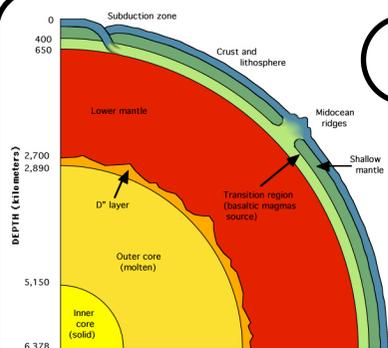
Mount Everest in the Himalayan range of fold mountains.

3



A pyroclastic flow from a volcanic eruption in the Philippines. These clouds can travel up to 450mph and reach temperatures of 1000°C.

4

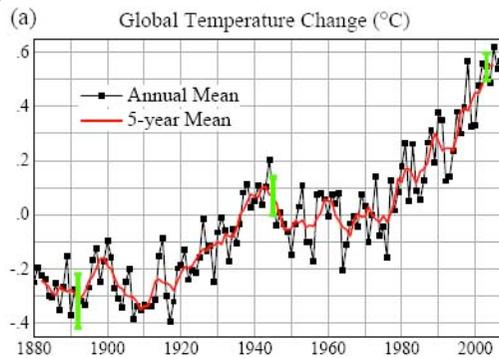


The structure of the earth and its crust; the plates float on the mantle, and are encouraged to move by convection currents from the Earth's core.

2

The world's population is estimated to continue rising placing more pressure on the resources available to feed, house and provide services to the increased number of people. This will force some people to live in areas at risk from tectonic activity.

7



Global temperatures have risen by 0.8°C in the last 150 years - the speed of this change alone suggests that human beings are changing the natural balance of the atmosphere.

8



Climate change means that more extreme weather events, and prolonged drought could seriously threaten food production and human survival in some parts of the world. This has huge potential to increase the population pressure on areas at risk from a range of hazards, including tectonic activity.

11



Mount Cleveland, Alaska erupts in 2006.

12

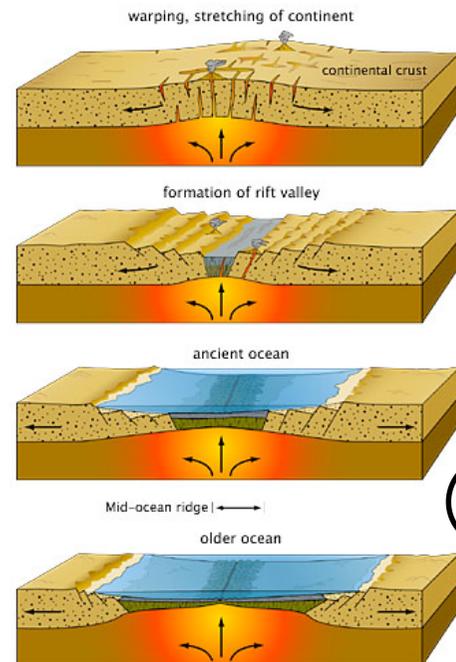


The aftermath of an earthquake in China May 2008.

9

Current trends in hazards from 1900-2008 indicate that the number of reported hazards has increased massively, as has the number of people affected by natural hazards and the financial cost of these hazards. At the same time there has been a significant fall in the number of people killed as a result of natural disasters in the same period of time.

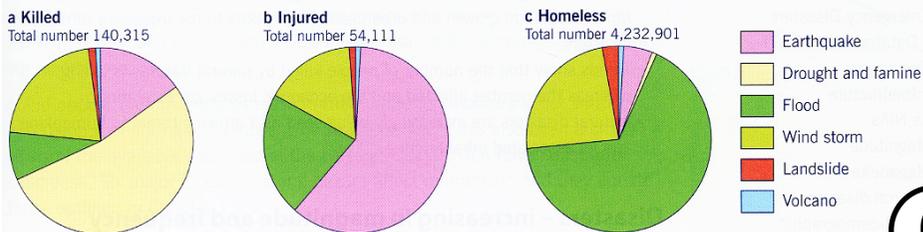
5



Some features of the landscape created by tectonic processes.

13

Deaths from different Hazards 1975-2005



6



The aftermath of a tsunami in the Indian Ocean December 2004.

10

Introduction to Tectonic Activity and Hazards

Challenge 1

Choose one photograph and brainstorm a range of questions that it raises. Then rearrange these questions into a logical sequence of enquiry.

Questions this photograph raises	A logical sequence of enquiry

Challenge 2

For one of the photographs make a list of all the things that would have happened before it to make it come about, and all the things that would happen after it - as a result of what's taking place.

Before	After

Introduction to Tectonic Activity and Hazards

Challenge 3

For photograph 4, 9 or 10 can you suggest what people would need to do in the short and long term to recover from this hazard, and suggest things they could do in the future to reduce the impact of such a disaster.

Short Term	Longer Term

Challenge 4

Can you draw up any groups or links among all of the sources/evidence? Write the links you find in the space below, and in your own word explain the links.