Year 9 Geography Notes- HAZARDOUS ENVIRONMENTS

Hazards

1.)What is a Hazard?

•A hazard is an event that threatens or causes damage and destruction to people,their property and their settlements.

2.)What is the difference between a hazard and a natural hazard?

•The difference between a hazard and a natural hazard:
-A natural hazard is an environmental hazard created by nature (e.g. storms)
-A hazard can be a man-made hazard (e.g. nuclear warfare)

3.)What is the difference between a natural hazard and a natural disaster?

•The difference between a natural hazard and a natural disaster:
-Natural hazards are the event itself while a natural disaster is the affect of that event on people (when over 10 people are killed by a hazard it it known as a natural disaster)

4.)Name two ways by which an earthquake might cause injuries or deaths.

•Two ways by which an earthquake might cause injuries or deaths:
-They cause sudden ground shakings-building can collapse and injure people.
-The after effect is a tsunami-can destroy poor-built structures, submerge cities and injure people as well.

5.)Name two ways by which a volcanic eruption might cause injuries or deaths?

•Two ways by which an volcanic eruption might cause injuries and deaths:
-Ash- carried by wind (covering big areas) and causing air travel to stop. It can also asphyxiate humans and animals.
-Gases such as carbon dioxide and cyanide are emitted- can kill people because they are so deadly and are very dense so they are close to the ground.

6.)Name two ways by which a tropical storm might cause injuries or deaths?

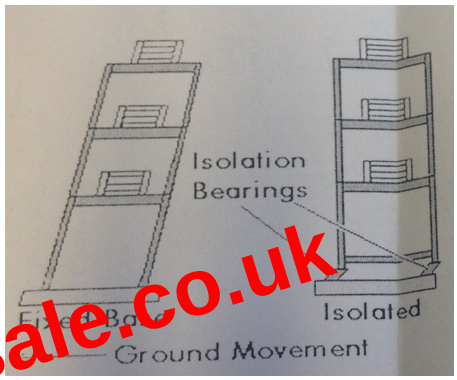
•Two ways by which a tropical storm might cause injuries and deaths:
-Strong winds can collapse buildings- can injure people
-Huge waves usually hit the coasts with heavy rainfall-could cause flooding- cut off communication, drown people and destroy essential supplies.

-This 660 tonne pendulum is connected to TMDs which absorbs force as well- keeps the weight acting through the building,hence more stable

2. e.g. Torre Mayor, Mexico City
-Deep foundations gives more support for the building to remain stable
-In these deep foundations are shock absorbers which absorb the rolling and shaking from an EQ instead of the building

3. e.g. TransAmerica Pyramid, San Francisco
-Cross bracing in the weakest parts of the building. This strengthens the frame work of the building
-Big triangle frames across the building because triangles are the strongest shape and also it allows the building to twist (torsionally)
-Because of this there are no weak points.

4. Base Isolation
-The foundations of the building are attached to rubber bearings.
-The building is separated from the shaking as the rubber bearings between the plates move.
-Allows the building to move as one and limit the damage
-i.e. the base moves in isolation to the building



•How to respond to an earthquake:
-Short-term:
*Put out fires, restoring electricity supplies and rescuing survivor
-Long-term:
•Fire Prevention:
-'Smart meters' have been developed
-They can cut of the gas if an earthquake of sufficient magnitude occurs.
•Emergency Services:
-Needs careful organisation and planning
-Civilians must be given first-aid training
•Land-use planning:
-The most hazardous areas in the event of an earthquake can be identified and regulated
-Lessens amount of deaths
•Insurance and Aid:
-In HICs, people are urged to take out insurance to cover their losses- can be very expensive for some people
-Most aid to LICs has been emergency aid e.g. providing medical services, water purification etc.
-Aid over the long time to reconstruct built environment and redevelop the economy