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| **IGCSE Geography – What can be done to reduce the impacts of earthquakes?** |



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| **Task 1** – Complete the following questions by studying the pie charts above.  |
| Approximately, how many more times deadly were earthquakes in poor countries than in rich countries (1976-2000)?  |  |
| Calculate the % reduction in fatalities in poor countries between the 1976-2000 and 2001-2015.  |  |
| Calculate the % reduction in fatalities in rich countries between the 1976-2000 and 2001-2015. |  |
| How many times more people died in poor countries that rich countries from strong earthquakes between 2001-2015?  |  |
| Can you think of any reasons why this death toll is so much higher in poor countries than in rich countries?  |  |

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| **Can We Earthquake Proof a City? – BBC The Inquiry** |



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| **Task 2** – Listen to the BBC Inquiry Podcast embedded on geographypods and complete the activity sheet below.  |
| How many people have died in the last 20 years in earthquakes?  |  |
| **Part 1 - Lessons From The Dead - Dr Emily Sow (researcher)** |
| Where in the world are earthquakes likely to happen? |  |
| What causes the most deaths to occur during an earthquake?  |  |
| What is the worrying trend in the developing world in terms of the building designed?  |  |
| You will hear details of two 7.6 magnitude earthquakes and two different locations. Fill in the death rate.  | Dead in Taiwan - Dead in Pakistan -  |
| Why is urbanization causing a higher death rate in less developed countries?  |  |
| **Part 2 – High Tech City – David Malott (architect)**  |
| Why are tall buildings safer than low to mid height buildings in earthquakes? Key word: Resonance.  |  |
| What is the Mile-High Tower and why does David want to build it in Japan?  |  |
| How long are these buildings designed to last for?  |  |
| **Part 3 – Low Tech City – Martijn Schildkamp (architect)** |
| How has Martijn successfully built schools to be earthquake resistant in Nepal?  |  |
| How can we use old materials in new ways to build earthquake resisted buildings in poor countries?  |  |
| Find a picture of a ‘gabion box’ on Google & paste it to the right.  |  |
| Why is he against the idea of the ‘build quick & cheap’ option?  |  |
| **Part 4 – Lifelines – Dr Lucy Jones (Seismologist USGS)**  |
| Why is stopping ‘all earthquake damage’ impossible?  |  |
| What did Lucy do in 2008?  |  |
| Note: The video you will hear is hyperlinked into geographypods. |
| What would happen in the Los Angeles basin in the event of the expected large earthquake?  |  |
| What would the aftermath of a large earthquake be in Los Angeles?  |  |
| What does retrofitting old buildings mean?  |  |
| What other things are being done to prepare for the big quake in Sothern California?  |  |
| How often does Southern California suffer from big earthquakes?  |  |
| So, can we earthquake proof cities?  |  |