



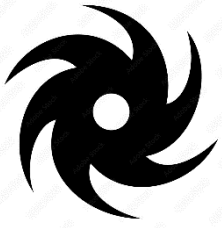


Big Question: Which natural disaster creates the most severe consequences?

Lesson	Essential Knowledge
<p data-bbox="161 271 336 338">Lesson One – Introduction</p>  <p data-bbox="172 589 325 618">Words: 112</p>	<p data-bbox="411 271 1485 618">A natural disaster is a natural hazard created from climate, weather or tectonic plate movement, such as tropical storms (hurricanes, cyclones and typhoons), forest fires, flash floods, earthquakes, tsunamis and volcanic eruptions. This introductory lesson covers a wide range of natural disasters, by discussing how they socially, economically and environmentally impact a location. In addition, natural disasters are categorised into different forms, such as geophysical (tectonic), hydrological (rainfall), climatological (heat) and biological (living organisms). Lastly, key causes, consequences and forms of preparation/response will be analysed, compared and debated in regards to Hurricane Katrina in USA, the Port-Au-Prince Haiti earthquake, the Yangtze-Huai floods of China and the Mount Pinatubo eruption within the Philippines.</p>
<p data-bbox="140 629 357 741">Lesson Two The 2010 Icelandic Eruption</p>  <p data-bbox="172 969 325 999">Words: 138</p>	<p data-bbox="411 629 1485 1014">In 2010, the island nation of Iceland is situated on two tectonic plates – the North American and Eurasian plates. These plates diverge (separate), which in 2010, resulting the 2010 eruption of Mt. Eyjafjallajökull. Despite the explosion lacking the ejection of lava, over 10 kilometres worth of volcanic gas and ash were ejected over 30,000 feet into the atmosphere, where travelled to countries like as Scotland and even Norway, which is almost 1500km away. Consequently, there was over £130 million lost for airline companies, trade between Europe, Africa and the Caribbean via airways slowed down, major mudslides affected the Icelandic population, as well as over 500 local cattle farmers losing their jobs. Thankfully, no lives were lost, but many Icelandic residents, who were not evacuated, were later diagnosed with respiratory-related illnesses, due to consuming large volumes of volcanic dust.</p>
<p data-bbox="113 1055 384 1122">Lesson Three – The Chilean Catastrophe</p>  <p data-bbox="172 1536 325 1565">Words: 184</p>	<p data-bbox="411 1055 1485 1581">In 1960, Chile experienced the biggest earthquake in their history, and was later recognised as the most powerful earthquake ever recorded. The range recorded was from 9.4-9.6 magnitude upon the Richter scale, but the average record was 9.5 as the earthquake lasted just under 10 minutes. The event occurred at just gone 3pm and led to a widespread secondary impact in the form of a tsunami, impacting southern Chile, Hawaii, Japan, the Philippines, New Zealand and even Australia. The epicentre of this megathrust earthquake was within the region of Lumaco, with Valdivia being the most affected city. The power of this earthquake not only devastated many parts developing Chile, but Hawaii experienced a 35ft tsunami that was 10,000 kilometres away from the epicentre. The death toll and economic costs from this widespread event are still uncertain, but the death toll estimations ranging from 7,000-10,000 fatalities, although Chilean's themselves predict this goes much higher when including the thousands that went missing. In addition, the economic cost has an estimated range of US\$400-800 million (which is today's currency including inflation rates, would be approximately \$3.39 billion).</p>
<p data-bbox="156 1592 336 1704">Lesson Four – Managing Montserrat</p>  <p data-bbox="172 1939 325 1968">Words: 138</p>	<p data-bbox="411 1592 1485 1973">In 1995, the tiny Caribbean island of Montserrat, experienced one of the most explosive eruptions in history. Until 1995, the island was a tropical paradise associated with farming, fishing and tourism, but remained a developing country with the average GDP per capita standing at £2,800 each year. However, Mount Soufriere erupted in 1995, which was dormant (extinct) for over 100 years prior, which was caused by a convergent plate boundary (plates colliding with one another) where the North American plate forced the dense South America plate to be subducted. As a result, 19 deaths were confirmed, over 150 people were injured, the sewage system mixed with the freshwater which resulted in contamination. Furthermore, the population, in the long-term, decreased from 12,000 to 1,500 due to population displacement, as the capital city of Plymouth since 1997, has remained abandoned.</p>

**Lesson Five – 2015:
Year Of The Storms**



Words: 172

In 2015, due to the growing effects of *climate change* and *global warming*, witnessed a year of consistent destructive *tropical storms* across North America, Asia and Africa. *Hurricane* Patricia in the United States and Mexico broke records by setting the fastest *wind speed* (recorded on *the Saffir-Simpson scale*) for a tropical storm in history, resulting in over \$5 million worth of damage, the deaths of 12 civilians and the loss of 1.3 million homes. *Typhoon* Soudelor affected China, Taiwan and the Philippine, and broke records for lasting over 18 hours on land as a category five tropical storm on the Saffir-Simpson Scale, which amounted to just under \$4 billion in damages and the mass *unemployment* of 7500 farmers across Asia. Lastly, *Cyclone* Chapala impacted the populations of Somalia and Yemen, which is recorded as the strongest and most devastating natural disaster in Africa's history. Consequently, a *storm surge* of over 11 metres tall destroyed coastal settlements, over 500,000 people were classed as *environmental refugees*, and *reconstruction of infrastructure* is still continuing today.

**Lesson Six – USA:
Flash Floods vs.
Forest Fires**



Words: 148

Document Total

Words: 892

USA is one of few *hotspots* for *climatic* and *tectonic hazards*, and in more recent years, particularly *flash floods* and *forest fires*. With the growing intensity and frequency of tropical storms, hugely down to *climate change* and *global warming*, the rate of flash floods and forest fires have increased by 250% in the 21st century. Some of the most vulnerable states to these *climatological hazards* include Pennsylvania and Mississippi for flash floods, and California for forest fires. In 1889, the Pennsylvania floods caused 50,000 to become *homeless*, over \$12.6 million in *property damage* and the deaths of 750 people. In the 2015 Mississippi floods, 1.2 million acres of farmland was lost, as well as \$2.8 billion in economic damage and the *displacement* of 43,000 residents. Lastly, the 2020 California *wildfires* destroyed almost 11,000 homes, killing 31 residents and forcing over 2,000 families to *relocate* to a new state.