

# YEAR 10 GEOGRAPHY – CYCLE 1 – EARTHQUAKES (TECTONIC HAZARDS CASE STUDY)

BOX 1: KEYWORDS		BOX 3: WHY DO PEOPLE LIVE IN AREAS AT RISK FROM TECTONIC HAZARDS?													
tectonic hazard	<b>volcano</b> or <b>earthquake</b>	family and friends	people <b>do not</b> want to move away from <b>friends</b> and <b>family</b> → may have <b>cultural attachment</b> to the area → may also be a <b>cheaper</b> area to live												
primary effects	what happens <b>straight away</b> e.g. <b>during</b> an <b>earthquake</b> → <b>buildings collapse</b>	tourism	more than <b>100 million people</b> visit areas affected by <b>volcanoes</b> and <b>earthquakes</b> on <b>holiday</b> → <b>tourism</b> provides an <b>income</b> to <b>local people</b> e.g. <b>tour guides, hotel workers</b> → <b>locals stay</b> in area for <b>employment</b>												
secondary effects	what happens <b>later on</b> e.g. <b>after</b> an <b>earthquake</b> → <b>broken gas pipes</b> may cause <b>fires</b>	farming	areas with <b>tectonic hazards</b> are often very <b>fertile</b> → <b>volcanoes</b> release <b>nutrients</b> into <b>soil</b> → very <b>good</b> for <b>farming</b> → provides <b>income</b> → only <b>1%</b> of <b>Earth</b> has <b>volcanic soils</b> but this provides <b>food</b> for <b>10%</b> of <b>population!</b>												
immediate responses	how people <b>help straight away</b> e.g. <b>straight after</b> an earthquake → <b>first aid</b> and <b>people rescued</b>	mining	people <b>employed</b> to <b>mine sulphur</b> from <b>volcanoes</b> → sulphur used in <b>matches</b> , to <b>bleach sugar</b> and for <b>fertilisers</b> → paid on average <b>\$6 per day</b>												
long-term responses	how people <b>help later on</b> e.g. <b>weeks, months</b> and <b>years</b> after an earthquake → e.g. <b>schools rebuilt</b>	geothermal energy	<b>water heated</b> by hot <b>magma</b> → turns into <b>steam</b> → used to turn <b>turbines</b> → generates <b>electricity</b> → <b>renewable</b> energy → <b>30%</b> of <b>electricity</b> in <b>Iceland</b> is from <b>geothermal energy</b>												
contrasting wealth	e.g. places with <b>different</b> amounts of <b>money</b> and development														
magnitude	<b>number</b> to <b>show</b> the <b>strength</b> of an <b>earthquake</b> <ul style="list-style-type: none"> <li><b>magnitude 1</b> → <b>not felt</b> by people</li> <li><b>magnitude 8</b> → <b>total destruction</b></li> </ul>														
BOX 2: EARTHQUAKE CASE STUDIES → IN CONTRASTING AREAS OF WEALTH		BOX 4: HOW CAN MANAGEMENT REDUCE THE RISKS FROM TECTONIC HAZARDS?													
	earthquake → <b>Italy</b>	earthquake → <b>Nepal</b>													
location	<b>Amatrice, Italy (Europe)</b>	<b>Gorkha, Nepal (Asia)</b>													
development	<b>High Income Country</b>	<b>Low Income Country</b>													
GNI per capita	In 2015 → <b>\$32,910</b>	In 2015 → <b>\$780</b>													
date and time	24 <sup>th</sup> August <b>2016</b> (3:36 am)	25 <sup>th</sup> April <b>2015</b> (11:56 am)													
magnitude	<b>6.2</b>	<b>7.8</b>													
primary effects	<ul style="list-style-type: none"> <li>deaths → <b>299</b></li> <li>injured → <b>400</b></li> <li>cost of damage → <b>\$19.7 billion</b></li> <li>hospitals damaged → <b>1</b></li> <li>important place damaged → <b>'Basilica of St. Benedict'</b></li> </ul>	<ul style="list-style-type: none"> <li>deaths → <b>8841</b></li> <li>injured → <b>16,800</b></li> <li>cost of damage → <b>\$5.15 billion</b></li> <li>hospitals damaged → <b>26</b></li> <li>important place damaged → <b>'Dharahara Tower'</b></li> </ul>													
secondary effects	<ul style="list-style-type: none"> <li>homeless → <b>4454</b></li> <li><b>tourism decreased</b></li> <li>farmers struggled → <b>90%</b> of <b>farm buildings destroyed</b>.</li> <li>people <b>arrested</b> for <b>looting</b>.</li> </ul>	<ul style="list-style-type: none"> <li>homeless → <b>1 million</b></li> <li>education → <b>50%</b> <b>schools lost</b></li> <li><b>avalanche</b> on <b>Mount Everest</b> → <b>19 died</b></li> <li><b>rice seed lost</b> → <b>less food</b></li> </ul>													
immediate responses	<ul style="list-style-type: none"> <li><b>10,000</b> people given <b>tents</b></li> <li>rescue team → <b>The Red Cross, 5000 soldiers, 12 helicopters</b></li> <li>appeal for <b>blood donations</b></li> </ul>	<ul style="list-style-type: none"> <li><b>The Red Cross</b> provided <b>tents</b> → for <b>225,000 people</b></li> <li><b>World Health Organisation</b> → distributed <b>medical supplies</b></li> </ul>													
long-term responses	<ul style="list-style-type: none"> <li><b>aid</b> from <b>European Union</b> → <b>\$1.3 billion</b></li> <li><b>12</b> temporary <b>classrooms</b> built</li> <li><b>earthquake proof</b> homes built</li> </ul>	<ul style="list-style-type: none"> <li><b>aid</b> from <b>European Union</b> → <b>\$274 million</b></li> <li><b>23</b> areas to be <b>rebuilt</b></li> <li><b>Mount Everest</b> trail <b>re-routed</b></li> </ul>													
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