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**Knowledge Rich Curriculum Plan**

Geography

**Year 10**



| **Lesson/Learning Sequence** | **Intended Knowledge:**  *Students will know that…* | **Tiered Vocabulary** | **Prior Knowledge:**  *In order to know this students, need to already know that…* |
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| **What is a Natural Hazard?** | A natural hazard is an event that has potential to endanger life, the economy and property  To know that hazards are classified into atmospheric, geological, water based and biological  To know that hazards are affected by a range of factors such as population, location, development and magnitude |  | To understand what is meant by development and how it affects countries  To know the term atmospheric means 'related to the atmosphere of the earth'  To know that geological means 'related to the earth's physical structure and substance' |
| **What are Plate Boundaries?** | Students will know the location of the worlds plate boundaries - use mid Atlantic ridge as key example  Students will know that tectonic plates can be either oceanic or continental depending on what is above them  Students will link plate margins to locations of fold mountains, earthquakes, volcanoes - refer to mid-Atlantic ridge as an example | **Tier 2: boundaries**  **Tier 3: lithosphere** | Students will know that oceanic means a tectonic plate is covered by an ocean and continental plate covered by land  Students will know the names of all continents and the locations of the Atlantic and Pacific Ocean |
| **Types of Plate Boundary** | To know that a destructive plate boundary involves tectonic plates moving towards each other (Converging)  To know that a constructive plate boundary involves plates away from each other (divergent)  To know that conservative plate boundaries involve plates sliding past each other | **Tier 2: destructive constructive conservative** | Students should know the structure of the earth, in particular the liquid form of the mantle  Students should know that a plate margin/boundary is the area at which two tectonic plates meet |
| **How do Volcanoes and Earthquakes happen?** | Students to know that volcanoes erupt due to pressure. The explosiveness of the eruption is linked to the viscosity of the lava  To know that composite volcanoes differ from shield mostly through steeper sides and more explosive eruptions  To know that earthquakes occur at all 3 type of plate boundaries releasing primary waves first then secondary waves. | **Tier 2: composite and shield volcano**  **Tier 3: subduction** | Viscosity of lava means the consistency  Knowledge of constructive, destructive and conservative plate boundaries from previous lessons |
| **The L’aquila Earthquake** | Students to understand the context of the earthquake in a HIC (High Income Country)  To learn a range of primary and secondary effects of the earthquake including 308 people killed and 10-15,000 buildings collapsed  To know a range of short- and long-term responses to the impacts of the earthquake. Must include; rapid response of the Italian red cross, Mortgages and bills paid for residents. Long term; Government officials found guilty of manslaughter | **Tier 2:destruction, aid** | Students must understand the differences between HICs and LICs  Students must understand the difference between long- and short-term impacts and responses |
| **Turkey/Syria Earthquake 2023** | Students will know the context of the earthquake is an LIC and the location of Turkey is in South-East Europe.  Students will know the primary and secondary effects of the earthquake; 44,218 deaths, 297 missing and 107,204 injured. 4 million buildings damaged, due to poor building codes and concrete quality.  Students will know a range of short- and long-term responses including $151 million in Aid from the DEC, red cross and UN providing medical supplies and shelter. | **Tier 2: development, aid, response**  **T** | Students need to already know that Turkey is an NEE and the general development issues associated with NEE’S  Students need to already know the differences between short- and long-term impacts.  Students need to know the effects of an earthquake on a HIC country |
| **Comparing Italy and Turkey Earthquakes** | * Students will know a range of factors contribute to the differing impacts of the earthquakes must include (but not limited to) magnitude, population density, distance from epicentre and time and day of the week * Students will know why the responses differ and how this links to the development. | **Tier 2: destructive constructive conservative**  **Tier 3: subduction,** | Students need to already know the range of impacts and responses to both earthquakes  Students need to already know how to compare development indicators and facts/figures linked to the earthquakes. |
| **Why do people live near Volcanoes** | * Students will be able to explain the reasons why people live near volcanoes - tourism, agriculture, geothermal energy and economic reasons * Students will understand the key ideas when mitigating tectonic hazards prediction, protection and planning | **Tier 2: composite and shield volcano**  **Tier 3: subduction viscosity** | Students will need to have a clear understanding of the impacts associated with earthquakes  Students will be able to apply new knowledge to their case study knowledge of L’Aquila and Turkey. |
| **Global Atmospheric Circulation** | * Students will know that latitude and the earths curvature influence climate by affecting levels of insolation (sun's solar radiation) and thus creating areas of high and low pressure * Students will know that the global atmospheric circulation model creates cells above and below the equator that directly influences climate * Students will know that the areas of high and low pressure directly affect the distribution of vegetation and cloud cover around the world | **Global atmospheric circulation** | Students will need to know the locations of the equator and the tropics  Students will need to be able to describe locations on the world map |
| **Typhoon Haiyan** | * Typhoon Haiyan is the one of the most powerful recorded cyclones * Came from the warmest ocean waters in the world * Hit the city of Tacloban in the Philippines, and destroyed 90%. * 6190 died, 4.1m made homeless. * Immediate response = One million food packs and 250,000 litres of water were distributed within two weeks. * Long term response = Build Back Better is the government’s response to the typhoon. Launched in 2014, it intended to upgrade damaged buildings to protect them from future disasters. | **Response** | Reponses needed to these events depend on the level of development in the country where the event takes place  Hazards are more likely to cause damage in LIC countries  That cyclones are low pressure weather events. |
| **Extreme Weather in the UK** | * Weather patterns are changing in the UK * Evidence shows that the hottest years on record are the most recent * Flooding and rainfall are both increasing in the UK * Uk is experiencing hotter summers and colder winters | **Trend**  **Pattern** | The UK weather is seasonal and has traditionally not suffered from extremes. |
| **Extreme Weather in the UK – Somerset Levels** | * Somerset suffered extensive flooding in 2014 * Flooding was caused by extreme rainfall – highest since records began, storm surges and lack of dredging in rivers * There were a range of impacts, must include; 600 houses flooded, 16 farms evacuated, £10 million damages, contaminated floodwaters and large amounts of debris. * Dredging of the rivers used as the main management strategy | **Debris** | * Extreme rainfall in the UK is becoming more of an issue * Low pressure brings hazards such as flooding |
| **Causes of climate change** | * Evidence for climate change from the beginning of the Quaternary period to the present day. * Possible causes of climate change: * natural factors – orbital changes, volcanic activity and solar output * human factors – use of fossil fuels, agriculture and deforestation | **Orbital**  **Agriculture** | * Climate changes mean long term changes in weather patterns * Physical factors are naturally occurring * Human factors are caused by people and their behaviours |
| **Impacts of climate change** | * Climate change has a number of negative effects, this must include; rising sea level, impacts on agriculture and migration patterns * In the past, people have suggested there are positive effects such as new agricultural patterns. * Ensure impacts on both people and environment are considered | **Migration** | * What is meant by climate change * Knowledge of the areas threatened by sea level rise. * Impacts if changing climates on agriculture. |
| **Climate change mitigation and adaptation** | * Climate change mitigation is action to limit climate change by reducing emissions of greenhouse gases. * Climate change adaptation is the process of adjusting to the effects of climate change. * Climate change mitigation includes carbon capture and storage, which removes c02 from factories and stores it underground. * Climate change adaptation includes building sea walls | **Mitigation**  **Adaption** | * Climate change has a number of negative effects, this must include; rising sea level, impacts on agriculture and migration patterns. |
| Changing Economic World | | | | |
| **Development Indicators** | * Development is defined as ‘the process of economic and social advancement and the improvement’ * Development can be measured through a range of development indicators including GDP per capita, life expectancy and access to clean water. * Individual development indicators have their limitations – key being that they do not show regional averages within countries. * HDI is a composite development indicator and so gives the best indication of the countries development | Development | * Countries are at a range of levels of development * Countries development is at different stages * Social refers to population of a place * Economic refers to the finances of a country |
| **Causes of Unequal Development** | * Development across the world has happened and continues to happen at differing rates * Physical factors include being landlocked, which reduces trade. * Historic factors include colonialism. * Economic factors include corruption. | **Landlocked** | * Development is defined as ‘the process of economic and social advancement and the improvement’ |
| **Lesson 3 – Consequences of Uneven Development** | * Disparities in health and wealth around the world created by uneven development. These include lower life expectancy and literacy rates. * Migration patterns around the world are affected by uneven development and can lead to a range of issues in source and host countries | **Disparity**  **Migration** | * Migration is the movement of people from one place to another * LIC/HIC/NEE |
| **The Demographic Transition Model** | * The DTM is model showing changes in birth rate, death rate and total population * Each stage links to a level of development. The higher stage = more developed. * Changes in birth rate and death rate in each stage can be explained by the level of development, factors include improving healthcare and the empowerment of women | **Demographics** | * Demographic means anything related to the make up of a population * LICs birth rate and death rate are * HICs birth and death rate are low * Natural increase is the name given to population change through more births than deaths. |
| **Reducing the development gap** | * There are a range of strategies that countries can utilise to address the development gap – these must include; investment, industrial development, tourism, aid, intermediate technology, fair trade, debt relief and microfinance loans. | **Intermediate**  **Microfinance** | * Development means both social and economic advancement of a country * That aid means help given to a country by either another country or an NGO |
| **Tourism in Kenya (Example of Reducing Development Gap)** | * Location and Physical features of Kenya – must include coastline (link to tourism), nature reserves and Mount Kenya * There are a range of positive and negative impacts of Kenya’s attempt to close the development gap. These should include increased employment and raise the profile of local culture (+) and low paid jobs and |  | * What is meant by the development gap * The positive multiplier effect brought about by employment and new job opportunities * The meaning of social, economic and environmental (in terms of positives/negatives |
| **CASE STUDY NIGERIA (1)** | * The location of Nigeria within Africa and the world * The key physical features of Nigeria * The importance of Nigeria in Africa and the wider world | **Regional** | * Meaning of the term NEE in comparison to HIC/LIC * Knowledge of using physical and policy |
| **CASE STUDY NIGERIA (2)** | * Nigeria’s economic structure has undergone changes due to the country’s development * Tertiary employment generates more income for a country than primary employment * Nigeria’s economic growth has been and will be limited by a number of factors, including the terrorist group Boko Haram and corruption. | **Primary**  **Tertiary**  **(in terms of employment)** | * Sectors of employment (From KS3) * Use of bar charts and how to read data correctly from them * Nigeria’s landscape is most suited to agriculture * Corruption is an economic cause of uneven development. |
| **CASE STUDY NIGERIA (3)** | * TNCs stimulate the economy of a country in which they invest through the implementation of secondary industries * TNCs want to invest in countries of different levels of development for different reasons * Shell’s relationship with Nigeria has positives (employment/taxes) and negatives (Bodo oil spill in the Niger Delta) | **Transnational Corporation** | * The characteristics of a TNC are HQ in HIC and secondary in LIC/NEEs * Oil extraction has environmental impacts |
| **Case study NIGERIA (4)** | * Nigeria has previous colonial links to the UK and other parts of Europe * Nigeria played a key role in the slave trade * China is using technology and investment to exploit Nigeria’s natural resources – they have shared technology such as Express trains and other elements of infrastructure | **Infrastructure**  **Neo-colonialism** | * Nigeria has valuable natural resources * FDI into Nigeria has come from TNCs but it currently coming from China. |
| **Nigeria (5)** | * Nigeria has a need for aid due to the gaps in health and wealth across the country. Must be aware that half of the population live below the poverty line * Aid and development differ due to the time frame in which they are delivered * Nigeria receives aid such as ‘nets for life’ and aid from the world bank | **AID**  **Development Aid** | * Nigeria is made up of areas that differ greatly in health and wealth * Aid is help given from one country to another |
| Urban issues and challenges | | | | |
| **Global urban patterns** | * The global pattern of urban change. And the reasons for the changes * Urban trends in different parts of the world including HICs and LICs and the reasons for the changes * Factors affecting the rate of urbanisation migration (push–pull theory), natural increase.] Impacts of migration in LIC and HIC cities * The emergence of megacities and the reason for their location | **Migration**  **Natural increase** | * Examples of push and pull factors that can influence migration |
| **Learning sequence: Case study of Urban growth in an NEE – RIO** | A series of lessons focused on key aspects of Rio de Janiero as an example of a NEE, must include;   * the location and importance of the city, regionally, nationally and internationally. Must include economic importance to the region and cultural events such as the carnival * causes of growth: natural increase and migration – specify the poor rural areas of Brazil * ***How urban growth has created opportunities such as;*** * access to services – health and education – free schools of tomorrow programme linked to the Olympics * access to resources – water supply, energy - improved services in the favelas. * how urban industrial areas can be a stimulus for economic development – make clear links to Rio’s physical features and how this contributes to importance as centre of trade. * ***How urban growth has created challenges – must include***; * managing urban growth – slums, squatter settlements – focus on the Favelas * lack of good supply of energy and water in the favela – residents utilise dangerous techniques to overcome this. * providing access to services – health and education * reducing unemployment and crime through pacification of the favelas – linked to the Rio Olympics * managing environmental issues waste disposal, air and water pollution, traffic congestion. Including the fining of companies that dump waste in the bay as well as toll roads and improved public transport. | **Social**  **Economic**  **Environmental**  **Location**  **Development**  **Pacification**  **Favela**  **Megacity**  **Migration**  **Physical**  **Human** | * NEE’s are countries that are rapidly developing * Migration can have positive and negative impacts * Megacities are growing rapidly, mainly in LICs and NEEs |
| **Learning Sequence: Urban Change in LIVERPOOL** | Series of lessons focusing on a number of key aspects of urban change in Liverpool. Must include;   * Location and wider cultural, religious, educational, historical and sporting significance of the city, * How migration from wales and Ireland affected the city and provided the famous accent * Migration from around the world has created a culturally diverse city including chinatown. * Urban change has been key to the city’s development;   £1 Billion development of the Albert Dock, Liverpool One and the surrounding areas.  Social – created job opportunities for local people, improved standard of living, narrowed deprivation in some areas.  Economic - Chain of impact through jobs, tax and infrastructure improvement  Environmental – green space developed in the city centre.  *Challenges*  Remains inequalities in housing and education across the city – make clear the links back to the docks and their closure. Some areas yet to recover.  Dereliction of buildings – now addressed by the regeneration.  Impact of urban sprawl and the increase in house prices in areas such as West Kirby, negatively influencing local residents. | **Development**  **Migration**  **Diversity**  **Regeneration**  **Socio- economic**  **Deprivation**  **infrastructure** | * Impact of migration on a city – link to previous case studies. * Growth of cities originally linked to locations * Positive impact of regeneration   Students will also have a prior knowledge of the city based on their own experience. Important to consider this. |