Geography A2 Unit 3: Personalised Learning Checklist

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| **Content/Topic: Energy** | **Red** | **Amber** | **Green** |
| **1 Energy supply, demand and security Enquiry question:** *To what extent is the world ‘energy secure’ at present?* |  |  |  |
| There are many energy sources that can be classified in different ways (flows of renewable sources, stocks of non-renewable and recyclable sources) and that have different environmental costs. |  |  |  |
| Access to and consumption of energy resources, both renewable and non-renewable, is not evenly distributed, and depends on physical factors, cost, technology and public perception. |  |  |  |
| Some areas suffer from energy poverty, while others have a surplus. |  |  |  |
| Demand for energy is growing globally, and at regional and local scales, especially in developed and emergent economies such as China and India. |  |  |  |
| Energy security depends on resource availability (domestic and foreign) and security of supply, which can be affected by geopolitics, and is a key issue for many economies. |  |  |  |
| **2 The impacts of energy insecurity Enquiry question:** *What are the potential impacts of an increasingly ‘energy insecure’ world?* | **Red** | **Amber** | **Green** |
| Energy pathways, between producers and consumers, are complex and show increasing levels of risk eg the trans-Siberian gas pipeline into Western Europe, or Middle Eastern supplies.  Awareness that tensions exist between energy producers and consumers, and that these can result in increased risk (rising costs) and conflict. |  |  |  |
| Increasing energy insecurity has stimulated exploration of technically difficult and environmentally sensitive areas, such as the Arctic circle, the West Shetland field and Canadian oil shales, which may incur env. costs. |  |  |  |
| Energy TNCs, OPEC countries and other large producers are increasingly powerful players in the global supply of energy. |  |  |  |
| **3 Energy security and the future**  **Enquiry question:** *What might the world’s energy future be?* | **Red** | **Amber** | **Green** |
| There is uncertainty over both global energy supply in terms of reserves (eg peak oil and gas) and demand (economic growth, conservation of resources, a switch to renewable sources). |  |  |  |
| There are different responses to increasing energy demands – such as ‘business as usual’ reliance on fossil fuels or the adoption of alternative sources such as nuclear, or wind power. Each has costs and benefits, such as future climate change, and local opposition. |  |  |  |
| Energy insecurity may lead to increased geopolitical tension and the potential for conflict, eg in the Middle East, or between gas consumers in Europe and producers in Russia, as consumers attempt to secure supplies. |  |  |  |
| Meeting future energy needs in developing, emergent and developed economies while avoiding serious env. degradation requires up-scaling of radical new approaches (conservation, recyling, renewables, carbon credits and ‘green’ taxation) involving difficult choices. |  |  |  |
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