

Edexcel A Level Geography 2022

Unit 6 PLC Revision Tracker

Carbon Cycle and Energy Security – Remember to revise all content from the specification, however these are the topics to be specifically examined on in Paper 1 and 3.

Key Idea	Topic Paper 1	RAG	Date Revised	Date Reviewed
6.2.a	Explain how phytoplankton sequester carbon during photosynthesis in surface ocean waters.			
6.2.a	Explain how carbonate shells move into the deep ocean through the carbonate pump and thermohaline circulation.			
6.3.b	Explain how ocean based and terrestrial photosynthesis play an important role in regulation of the atmosphere.			
6.3.b	Explain how soil health is influenced by stored carbon which is important for ecosystem productivity.			
6.4.a	Describe and explain energy consumption patterns in terms of per capita use and in terms of units of GDP.			
6.4.a	Describe and explain energy mix patterns in terms of domestic/foreign, primary/secondary energy or renewable/non-renewable energy.			
6.4.b	Understanding that access to energy resources depends on a variety of factors (physical availability, cost, technology, public perception, level of development and environmental priorities).			
6.4.b	Understanding that consumption of energy resources depends on a variety of factors (physical availability, cost, technology, public perception, level of development and environmental priorities).			
6.4.c	Energy key players have varied roles in securing pathways for energy supply.			
6.6.a	Explain how renewable and recyclable energy (nuclear power, wind power, solar power) could help to break the link between fossil fuel use and economic development.			
6.6.a	Assess the costs and benefits of the contribution of the above energy resources (socially, economically and environmentally) to energy security.			
	Additional Content for Paper 3			
6.8.c.	Explain how the degrading water and carbon cycle causes threats to ocean health.			
6.8.c	Assess how these threats to ocean health affect human wellbeing with a focus on settlements in developing regions that depend on marine resources for food, tourism and coastal protection.			
6.9.a	Understand the uncertainty of future carbon emissions, atmospheric concentration and climate warming due to natural factors (the role of carbon sinks).			
6.9.a	Understand the uncertainty of future carbon emissions, atmospheric concentration and climate warming due to human factors (economic growth, population, energy sources).			
6.9.a	Understand the uncertainty of future carbon emissions, atmospheric concentration and climate warming due to feedback mechanisms (carbon from peat and permafrost, alterations to the thermohaline circulation, forest dieback).			
6.9.b	Assess the costs and risks of adaptation strategies for a changed climate (water conservation, resilient agricultural systems, land-use planning, flood risk management, solar radiation management)			
6.9.c	Understanding that any attempts to re-balance the carbon cycle would require a global scale agreement which has proven to be politically problematic (carbon taxation, renewable switching, energy efficiency, carbon capture and storage, afforestation).			

Note to all students

Whilst the exam board have highlighted that these will be the topics specifically asked about on the exam papers in the summer, a wider understanding of the full specification is almost certainly going to be necessary for top marks. This is intended to focus your revision, not be a complete specification guide.