**Links to the Exam Specifications: How does ocean acidification meet key learning objectives in the AS, A2 and IB specifications?**

|  |  |  |  |
| --- | --- | --- | --- |
| **Exam spec** | **Enquiry questions** | **Key learning objectives** | **Examples** |
| **Edexcel Unit 1: Global Challenge**  **Climate change and its causes** | *Is global warming a recent short term phenomenon or should it be seen as part of long term climate change?* | The current phenomenon of global warming should be set in the context of longer, medium and short term climate change. A range of evidence from ecology, historical records and climate change should be reviewed. | Researching the evidence of recent climate change could include scientific research from weather, ocean, polar ice and ecosystem changes. |
| *What are the impacts of climate change and why should we be concerned?* | A case study of environmental and ecological impacts of Arctic warming in the Arctic region. | Developing an awareness of the direct impacts of global warming through case studies of vulnerable places to understand the resulting environmental, ecological and economic impacts. |
| **OCR Unit F761: Managing Physical Environments**  **Cold environments** | *Why are cold environments considered to be ‘fragile’?* | Climatic extremes lead to finely balanced ecosystems which can be easily damaged. | The study of one cold environment to illustrate the impacts of climate on the nature of the ecosystem. |
| **WJEC Unit G1: Changing Physical Environments**  **Investigating Climate Change** | *What are the issues resulting from climate change?* | Changing climates and shifting climate belts and the effects on biomes | Research into the impacts of global warming on different countries and regions. |
| **IB Unit Part 2: Optional Themes** | *Option B: Oceans and their coastal margins*  *Option C: Extreme environments* | Oceans and climate: Carbon dioxide  Sustainability: Impact | Examine the role of oceans as a store and source of carbon dioxide (CO₂)  Discuss the potential impact of global climatic change (global warming) on the indigenous populations, settlement and economic activities in extreme environments. |