

CB9: **Ecosystems and Material Cycles** (Paper 2)

Lesson	Objectives Tracker Sheet	Date covered	I know this well	I need to do more work on this
CB9a Ecosystems	B9.1 Describe the different levels of organisation from individual organisms, populations, communities, to the whole ecosystem.			
	B9.3 Describe the importance of interdependence in a community.			
	B9.6 Explain how to determine the number of organisms in a given area using raw data from field-work techniques, including quadrats.			
CB9b Abiotic factors and communities	B9.2 Explain how communities can be affected by abiotic factors including temperature, light, water, pollutants			
	B9.6 Explain how to use raw data from field-work techniques, including quadrats and belt transects.			
CB9b Quadrats and transects – Core Practical	B9.5 Core Practical: Investigate the relationship between organisms and their environment using field-work techniques, including quadrats and belt transects.			
CB9c Biotic factors and communities	B9.2 Explain how communities can be affected by biotic factors including: competition, predation.			
CB9d Parasitism and mutualism	B9.4 Describe how the survival of some organisms is dependent on other species, including parasitism and mutualism			
CB9e Biodiversity and humans	B9.9 Explain the positive and negative human interactions within ecosystems and their impacts on biodiversity, including: fish farming introduction of non-indigenous species eutrophication			
CB9f Preserving biodiversity	B9.10 Explain the benefits of maintaining local and global biodiversity, including the			

	conservation of animal species and the impact of reforestation.			
CB9g The water cycle	B9.12 Describe how different materials cycle through the abiotic and biotic components of an ecosystem			
	B9.14 Explain the importance of the water cycle including the processes involved and the production of potable water in areas of drought including desalination			
CB9h The carbon cycle	B9.13 Explain the importance of the carbon cycle including the processes involved and the role of microorganisms as decomposers.			
CB9i The nitrogen cycle	B9.15 Explain how nitrates are made available for plant uptake, including the use of fertilisers, crop rotation and the role of bacteria in the nitrogen cycle			