




# Review B7 Ecology

<b>Can you...?</b>			
<b>7.1 Adaptations, interdependence and competition</b>			
Suggest the factors for which organisms are competing in a given habitat			
Suggest how organisms are adapted to the conditions in which they live			
Define an ecosystem			
Define interdependence			
Explain what is meant by a "stable community"			
Explain how a change in an abiotic factor would affect a given community			
List abiotic factors			
Explain how a change in a biotic factor might affect a given community			
List biotic factors			
Explain how organisms are adapted to live in their natural environment			
Define an extremophile			
<b>7.2 Organisation of an ecosystem</b>			
Define a producer, primary consumers, secondary consumers and tertiary consumers			
Construct food chains			
Explain the use of transects and quadrats			
Explain why, in a stable community, the numbers of predators and prey rise and fall in cycles			
Recall the carbon cycle			
Recall the water cycle			
Explain the role of microorganisms in cycling materials through an ecosystem.			
State factors which affect the rate of decay(biology only)			
Recall that biogas generators can be used to produce methane gas as a fuel.			
Evaluate the impact of environmental changes on the distribution of species in an ecosystem given appropriate information (biology only) (HT only)			
State some environmental changes			
<b>7.3 Biodiversity and the effect of human interaction on ecosystems</b>			
Define biodiversity			
State the benefit of ensuring a great biodiversity			
Explain how human activities are reducing biodiversity			
Understand that rapid growth in the human population and an increase in the standard of living mean that increasingly more resources are used and more waste is produced. Unless waste and chemical materials are properly handled, more pollution will be caused			
Explain how pollution can occur on land, in air and in water			
State how humans reduce the amount of land available for other animals			
Explain the destruction of peat bogs			
State why large-scale deforestation in tropical areas has occurred			
List the consequences of deforestation			
Describe global warming			
State the biological consequences of global warming			
Explain how humans are trying to reduce these negative effects			
<b>7.4 Trophic levels in an ecosystem (biology only)</b>			
List the trophic levels (biology only)			
State the role of decomposers (biology only)			
Construct a pyramid of biomass (biology only)			
Explain how the loss of biomass at each trophic level affects the number of organisms at each level. (biology only)			
Recall that only approximately 10% of the biomass from each trophic level is transferred to the level above it. (biology only)			

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State reason for losses of biomass			
4.7.5 Food production (biology only)			
List some factors affecting food security (biology only)			
Explain 'Factory farming' to restrict energy transfer from food animals to the environment. (biology only)			
Explain sustainable fishing security (biology only)			
Understand that modern biotechnology techniques enable large quantities of microorganisms to be cultured in industrially controlled vats for food. (biology only)			
State that the fungus <i>Fusarium</i> is useful for producing mycoprotein, (biology only)			
Recall that GM bacterium produces human insulin. (biology only)			