

Year 11 Biology Learning Outcomes

Unit 7: Ecology

Unit 7.1: Adaptations Interdependence and Competition

- Describe different levels of organisation in an ecosystem from individual organisms to the whole ecosystem and describe the importance of interdependence and competition in a community.
- Explain how abiotic and biotic factors affect the location and abundance of species in a habitat.
- Measure the population size of a common species in a habitat. Use sampling techniques to investigate the effect of a factor on the distribution of this species.
- Suggest when given appropriate information, which factors organisms are competing for in a habitat.
- Explain how organisms are adapted to live in their natural environment (given appropriate information).

Unit 7.2: Organising an Ecosystem

- Understand that photosynthetic organisms are the producers of biomass for life on Earth and that feeding relationships can be represented by food chains.
- Explain the importance of decomposers in the ecosystem and the importance of the water cycle to living organisms.
- Explain the importance of the carbon cycle to living organisms.

Unit 7.3: Biodiversity and Ecosystems

- Explain the reasons for an increasing human population and what impact this has on the planet.
- Explain what causes pollution on land and in water and the effects of this on biodiversity.
- Explain the impact of acid rain, smoke and smog on the human population and the environment including methods to reduce the impact on human health and describe how acid rain forms.
- Explain the environmental impacts of deforestation on the biodiversity of life and describe the reasoning for deforestation and peat bog destruction.
- Explain the biological consequences of global warming and discuss the potential methods to prevent global warming from happening.
- Suggest the most significant means to maintain biodiversity from a range of methods.