

Access to Higher Education Unit

This unit forms part of an Access to HE Diploma. If delivering the graded version of this unit, please refer to the Provider Handbook for details on grading descriptors and the application of these across units within your programme.

Unit Title: Ecosystems

Graded Unit Reference Number: GA33BIO10

Ungraded Unit Reference Number: UA33BIO10

Module: Biology

Level: Three (3)

Credit Value: Three (3)

Minimum Guided Learning Hours: 30

Learning Outcome (The Learner will):	Assessment Criterion (The Learner can):
1. Understand basic ecological principles and terminology	1.1 Use examples to illustrate the meaning of the terms: population, community, environment, ecosystem, biome, habitat, ecological niche and biodiversity
	1.2 Use information to construct food chains and food webs and to identify trophic levels (producer, primary and secondary consumer, and decomposers)
	1.3 Draw pyramids of numbers, energy and biomass and evaluate them in terms of the laws of thermodynamics and conservation of mass
2. Recognise the importance of recycling in ecosystems and the effects of human activity	2.1 Interpret diagrams illustrating the water cycle, the carbon cycle and the nitrogen cycle and explain the roles of microorganisms in cycling nutrients
	2.2 Research and summarise one effect of human activity on each of the water cycle, the carbon cycle and the nitrogen cycle
3. Understand the factors affecting ecological succession and the effects of human activity on climax communities	3.1 Describe ecological succession for a named bare substrate (e.g. bare rock, sand [dune], lifeless pond)

3.2 Explain the concept of the climax community and why such communities are generally stable

3.3 Research one example of the effects of human activity on a climax community (e.g. slash and burn farming, pastoralism, monoculture, urbanisation, mining)