

## 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:** The Biosphere and Ecosystems

**Graded Unit Reference Number:** GA33GEO01

**Ungraded Unit Reference Number:** UA33GEO01

**Module:** Geography and Environmental Studies

**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 Explain the meaning of the term biosphere
	1.2 Use examples to illustrate the meaning of the terms: population, community, environment, ecosystem, biome, habitat, ecological niche and biodiversity
2. Understand the flow of energy and materials in a community	2.1 Use information to construct food chains and food webs and to identify trophic levels (producer, primary and secondary consumer, and decomposers)
	2.2 Use data to draw pyramids of numbers, energy and biomass
	2.3 Explain the shapes of pyramids of number, energy and biomass in terms of the flow of energy and materials, including top heavy pyramids of number
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 describe the typical climax community in the UK
	3.3 Explain the stability of climax communities

3.4 Define the term plagioclimax and use an example to explain the effects of human activity on succession