

# Access to H.E. Regional Programme Ungraded Unit



**Pathway(s):** Humanities and Social Science  
 Science and Engineering  
 Construction and the Built Environment

**Module(s):** Geography and Environmental Studies

**Unit Title:** The Biosphere and Ecosystems

**Unit Code:** UA33GEO01

**Level:** Three

**Credit Value:** 3

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**Valid From:** 1 August 2014

**Valid To:** 31 July 2019

LEARNING OUTCOMES	ASSESSMENT CRITERIA
<b>The learner will:</b>	<b>The learner can:</b>
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.