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| **What will we be learning?****Year 13 Ecosystems Populations and Sustainability** | **Why this? Why now?**Previous Learning Future Learning Enquiry ProcessesAnalyse Patterns, Draw conclusions, Present data, Justify opinions, Collect data, Present data, Plan variables | **Key Words:****Abundance****Bias****Mark release recapture****Percentage cover****Population density:** **Quadrat****Random sampling****Sample size****Systematic sampling****Transect** |
| **What will we learn?*** That ecosystems, which range in size, are dynamic and are influenced by both biotic and abiotic factors
* How biomass transfers through ecosystems
* How recycling occurs within ecosystems
* The process of primary succession in the development of an ecosystem
* How the distribution and abundance of organisms in an ecosystem can be measured
* The use of sampling and recording methods to determine the distribution and abundance of organisms in a variety of ecosystems
* The factors that determine size of a population
* Interactions between populations including predator–prey relationships considering the effects on both predator and prey populations AND interspecific and intraspecific competition
* The reasons for, and differences between, conservation and preservation
* How the management of an ecosystem can provide resources in a sustainable way
* The management of environmental resources and the effects of human activities.

**Misconceptions in this topic** |
| **What opportunities are there for wider study?**CareersAgriculture Audiology Biochemistry Biotechnology Brewing Dentistry Dietetics Ecology Environmental Health Environmental science Fisheries Work Food Science Forensics Horticulture Laboratory Work Marine Biology Medicine Nursing Occupational Therapy Opthalmics and Orthoptics Paramedical Science Pharmacology Physiotherapy Prosthetics and Orthotics Psychiatry Radiography Speech Therapy Sports Science Teaching Veterinary Work ZoologySTE(A)M https://highcliffe.sharepoint.com/sites/LearnSTEM |
| **How will I be assessed?**End of topic assessment  |