** A level Year 2** Eduqas Component 1

**Population Size and Ecosystems**

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|  |  | R | A | G |
| 1 | populations and the way in which they grow - a simple quantitative treatment including immigration, emigration, birth and death rates |  |  |  |
| 2 | graphs showing population growth and factors affecting population growth; competition; carrying capacity |  |  |  |
| 3 | the regulation of populations by density dependent and density independent factors |  |  |  |
| 4 | the sampling techniques used to assess abundance and distribution of organisms in a habitat |  |  |  |
| 5 | the concept of ecosystems, including that ecosystems range in size from very large to very small |  |  |  |
| 6 | the sun is the source of energy for an ecosystem |  |  |  |
| 7 | the concepts of habitat and community |  |  |  |
| 8 | the transfer of biomass from plants to animals including trophic levels,  efficiency of transfer; gross and net production and pyramids of biomass |  |  |  |
| 9 | the principles of succession as illustrated by the colonisation of bare rock to form woodland |  |  |  |
| 10 | the terms primary and secondary succession, pioneers, sere and climax  community |  |  |  |
| 11 | the importance of organic breakdown in recycling nutrients |  |  |  |
| 12 | the carbon cycle |  |  |  |
| 13 | the effects of human activities on the carbon cycle including that climate  change affects the distribution of species and is a possible cause of  extinction |  |  |  |
| 14 | the role of bacteria in the nitrogen cycle and the significance of nitrates in producing proteins and nucleic acids |  |  |  |
| 15 | the importance of human activities such as ploughing and drainage in producing the aerobic conditions needed for nitrification and the economic importance of the nitrogen cycle in relation to food production and fertiliser application |  |  |  |
| 16 | the process of eutrophication and algal blooms and that drainage has adverse effects on habitats |  |  |  |

**SPECIFIED PRACTICAL WORK**

Investigation into the abundance and distribution of organisms in a habitat