Syllabus			
Worksheet	**AQA**	**OCR**	**EDEXCEL**
Classification	3.2.1 The concept of normal distribution about a mean. Understanding mean and standard deviation as measures of variation within a sample 3.2.8 Classification systems 3.3.3 Using a standard scientific calculator to calculate mean and standard deviation, plotting data as line graphs, bar charts and histograms	2.3.2 Classification: describe the classification of species into the taxonomic hierarchy of domain, kingdom, phylum, class, order, family, genus and species.	
Investigating populations	3.2.1 The need for random sampling, and the importance of chance in contributing to differences between samples. 3.2.11 Calculation of an index of diversity 3.4.1 Random sampling with quadrats and counting along transects to obtain quantitative data. 3.4.1 The use of percentage cover and frequency as measures of abundance. The use of mark–release–recapture for more mobile species.	2.3.1 Biodiversity: describe how random samples can be taken when measuring biodiversity; use Simpson's Index of Diversity (*D*) 5.3.1 Ecosystems: describe how the distribution and abundance of organisms can be measured, using line transects, belt transects, quadrats and point quadrats	Unit 4: Describe how to carry out a study on the ecology of a habitat to produce valid and reliable data
Carbon cycle	3.3.1 Explain why appropriate control experiments should be established.	5.3.1 Ecosystems: describe the role of decomposers in the decomposition of	Unit 4 Understanding the carbon cycle

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	Identify the dependent variable; identify the independent variable. 3.4.6 The carbon cycle	organic material	
Ecological terms	3.4.1 A population is all the organisms of one species in a habitat. Populations of different species form a community. Within a habitat a species occupies a niche governed by adaptation to both biotic and abiotic conditions. Interactions between organisms: interspecific and intraspecific competition and predation.	2.3.1 Biodiversity 5.3.1 Ecosystems: define the terms *biotic factor* and *abiotic factor*	Unit 4: Explain that the numbers and distribution of organisms in a habitat are controlled by biotic and abiotic factors
Statistical Skills	3.4.1 The use of percentage cover and frequency as measures of abundance. The use of mark–release–recapture for more mobile species. 3.6.3 Spearman's rank: Construct an appropriate null hypothesis. Interpret the calculated test statistic in terms of the appropriate critical value at the 5% significance level, making reference to chance, probability and acceptance or rejection of the null hypothesis.	2.3.1 Biodiversity: describe how random samples can be taken when measuring biodiversity; 5.3.1 Ecosystems: describe how the distribution and abundance of organisms can be measured, using line transects, belt transects, quadrats and point quadrats.	Unit 4: Describe how to carry out a study on the ecology of a habitat to produce valid and reliable data.

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Statistical skills example sheet	3.6.3 Spearman's rank: Construct an appropriate null hypothesis. Interpret the calculated test statistic in terms of the appropriate critical value at the 5% significance level, making reference to chance, probability and acceptance or rejection of the null hypothesis.		

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