Year 10: ASK Yourself!

Subject: Biology
Unit: 8 – Ecology

	Launching 1-2	Developing 3-4	Progressing 5-6	Mastering 7-9
Skills				
	To be able to classify into groups. To be able to observe organisms in their habitats and suggest inter-relationships.	Be able to compare classification information on related and unrelated organisms. Measure height and calculate means. Present and analyse the results. Interpret population curves and explain predator – prey relationships. Calculate efficiency of biomass transfer.	To be able to investigate the effect of planting density on height of seedlings. Use a transect to investigate the change in type and number of plant species across a changing habitat, e.g. a footpath. Interpret data and calculate rates.	Critically evaluate model changes in an environment. Evaluate methods to estimate cover and modify to estimate a plant population on the school field. Use quadrats and sensors; record and analyse results. Develop explanations for adaptations.
Knowledge				
	To be able to Classify organisms based on their similarities. Define the term biodiversity. Describe how acid rain is formed and the effects of acid rain on living organisms.	Be able to describe Carl Woese's system of classification and classify organisms into the three mains. Describe factors that affect the survival of organisms in their habitat. Describe how to carry out random sampling of organisms using a quadrat.	Be able to explain why the importance of the binomial system to name organisms. Be able to name abiotic factors in a habitat and explain how a change in a biotic factor might affect a community. Compare the adaptations of herbivores, carnivores and omnivores and relate these to the food they eat. Explain the difference between aerobic and anaerobic decay.	To be able to interpret and explain population curves, e.g. hare and lynx, red and grey squirrels, and native and American crayfish. To be able to discuss why plants only absorb 1% of the incident light for photosynthesis. Evaluate the use of biogas generators. Evaluate the use of fertiliser on plant growth and oxygen levels.