A Level Biology

Module 1 Development of practical skills in biology	Module 2 Foundations in biology	Module 3 Exchange and Transport	Module 4 Biodiversity, evolution and disease	Module 5 Communication, homeostasis and energy	Module 6 Genetics, evolution and ecosystems
Building on: **KS4:** **Practical skills developed throughout KS4**	**Building on:** **KS4:** Basic Cell structure Stages of mitosis and meiosis Structure of proteins, lipids and carbohydrates	**Building on:** **KS4:** **Heart and lung structure** **Roles of alveoli** **Structure of xylem and phloem**	**Building on:** **KS4:** **Role of white blood cells** **Importance of biodiversity in maintaining species** **Basic classification system**	**Building on:** **KS4/5** Respiration equation Photosynthesis equation Limiting factors of photosynthesis	**Building on:** **KS4/5** Ethical considerations of cloning Factors affecting population numbers

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
AS Route 1	Cell Structure	Cell Membranes	Cell Division	Exchange Surfaces Transport in Animals	Transport in Plants	**External Examinations**
AS Route 2	Biological Molecules	Nucleotides and Nucleic Acids	Enzymes	Disease and the Immune System Biodiversity	Classification and Evolution	
A2 Route 1	Communication and Homeostasis Excretion Animal Responses	Plant Responses Ecosystems	Cloning and biotechnology	Populations and Sustainability	**Exam preparation**	**External Examinations**
A2 Route 2	Photosynthesis	Respiration	Cellular Control Patterns of Inheritance	Evolution Manipulating Genomes		

Module 1 AS PAG : Using a light microscope to study stages of mitosis, investigating water potential of potato, dissection of mammalian heart, determining glucose concentration, qualitative testing for protein, identification of amino acids in a protein using paper chromatography, investigation DNA structure using RasMol, investigating the effect of amylase on enzyme activity.

Module 1 A2 PAG: Investigating Daphnia Heart Rate, Investigating the rate of oxygen production in pondweed, the effect of antibiotics on bacterial growth