Curriculum Map- A Level Biology

Below is a curriculum map, showing what is taught at each stage of the year.

	Term 1.1	Term 1.2	Term 2.1	Term 2.2	Term 3.1	Term 3.2
Year 12 Teacher A	**Biological molecules** ● Monomers and polymers ● Carbohydrates & Lipids ● Proteins & Enzymes ● **Required Practical 1.Investigation into the effect of a named variable on the rate of an enzyme-controlled reaction** ● Nucleic acids are important information-carrying molecules ● ATP , Water & Inorganic ions			**Exchange** ● Surface area to volume ratio ● Gas exchange ● Digestion and absorption ● Mass transport ● **Required Practical 4. Investigation into the effect of a named variable on the permeability of cell-surface membranes** ● **Required Practical 5. Dissection of animal or plant gas exchange or mass transport system or of organ within such a system**		
Year 12 Teacher B	**Cells** ● Cell structure ● All cells arise from other cells ● Transport across cell membranes ● Cell recognition and the immune system ● **Required Practical 2. Preparation of stained squashes of cells from plant root tips; set-up and use of an optical microscope to identify the stages of mitosis in these stained squashes and calculation of a mitotic index** ● **Required Practical 3. Production of a dilution series of a solute to produce a calibration curve with which to identify the water potential of plant tissue**			**Genetics** ● Protein synthesis. ● Genetic diversity ● Adaptation ● Species and taxonomy. ● Biodiversity within a community ● Investigating diversity ● **Required Practical 6. Use of aseptic techniques to investigate the effect of antimicrobial substances on microbial growth**		

Year 13 Teacher A	**Bioenergetics** ● Photosynthesis ● **Required Practical 7. Use of chromatography to investigate the pigments isolated from leaves of different plants, eg leaves from shade-tolerant and shade-intolerant plants or leaves of different colours** ● **Required Practical 8. Investigation into the effect of a named factor on the rate of dehydrogenase activity in extracts of chloroplasts** ● Respiration ● **Required Practical 9. Investigation into the effect of a named variable on the rate of respiration of cultures of single-celled organisms** ● Energy and Ecosystems ● Nutrient cycles	**Ordanisms & their response to change** ● Survival & Response ● **Required Practical 10. Investigation into the effect of an environmental variable on the movement of an animal using either a choice chamber or maze** ● Nervous Control ● Homeostasis ● Blood sugar & water potential ● **Required Practical 11. Production of a dilution series of glucose solution and use of colorimetric techniques to produce a calibration curve with which to identify the concentration of glucose in an unknown 'urine' sample**
Year 13 Teacher B	**Genetics, populations, evolution and ecosystems** ● Inheritance ● Populations ● Populations in ecosystems ● **Required Practical 12. Investigation into the effect of a named environmental factor on the distribution of a given species**	**Gene expression** ● DNA sequencing & protein structure. ● Gene expression ● Genome projects ● Gene technologies

A Level Biology Assessment

Paper	Topics	Assessment Format	Question Style	
1	Any content from **topics 1–4**, including relevant practical skills	• written exam: 2 hours • 91 marks • 35% of A-level	**76 marks**: a mixture of short and long answer questions **15 marks**: extended response questions	
2	Any content from **topics 5–8**, including relevant practical skills	• written exam: 2 hours • 91 marks • 35% of A-level	**76 marks**: a mixture of short and long answer questions **15 marks**: comprehension question	
3	Any content from **topics 1–8**, including relevant practical skills	• written exam: 2 hours • 78 marks • 30% of A-level	**38 marks**: structured questions, including practical techniques **15 marks**: critical analysis of given experimental data **25 marks**: one essay from a choice of two titles	