



Subject	Year	Term
Biology	13	1
Topic		
Module 5 Communication, Homeostasis And Energy; Module 6 Genetics		
Content (Intent)		
Prior Learning (Topic)	Module 4 – Biodiversity, Evolution and Disease; Module 6 - Evolution and ecosystems	
Module 5 Energy transfers in and between organisms - Photosynthesis, Respiration, Homeostasis, Neuronal Communication		
Module 6 Genetics – Inheritance patterns, control of gene expression, Selection, hardy Weinberg calculation, speciation, Manipulating genomes, DNA sequencing, genetic engineering, DNA profiling, ethical issues		
Future Learning (Topic) Module 5 – Homeostasis, Module 6 – Cloning and biotechnology		
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)	
Module 5 – Energy Photosynthesis , light dependant reaction, light independent reaction, Calvin cycle, factors affecting photosynthesis Practical Use of chromatography to investigate the pigments from leaves in sun, shade and leaves with differing pigments. Practical Investigation into the effect of a named factor on the rate of dehydrogenase activity in extracts of chloroplasts. Module 6 – Gene mutations, control of gene expression, patterns of inheritance, monogenic, dihybrid, linkage, codominance, epistasis Chi Squared.	End of topic test – A level grading and formative feedback given. Homework – a mark, A level grade and formative feedback provided.	
Module 5 – Respiration , glycolysis, krebs cycle, chemiosmosis. Respiratory substrates, RQ. Communication and Homeostasis – receptors, positive and negative response. physiological and behavioural responses involved in temperature control, neuronal communication. Module 6 – Selection, hardy Weinberg calculation, speciation, Manipulating genomes, DNA sequencing, genetic engineering, DNA profiling, ethical issues Practical – inheritance of genes in fruit flies.	End of topic tests – A level grading and formative feedback given. Autumn Exam – A level grading and formative feedback given. Homework – mark, A level grade and formative feedback given.	
How can parents help at home?		
Ensure all class notes are complete and homework submitted on time Encourage pupils to revise for tests and exams and to create revision resources such as flash cards and posters. Encourage pupils to actively research future University courses and careers.		
Helpful further reading/discussion (including Reading and Vocabulary Lists)		
Reading OCR revision guides OCR CGP Text book Essential Maths Skills for AS/A level Biology CGP Resources on Teams Websites https://www.ocr.org.uk/qualifications/as-and-a-level/biology-a-h020-h420-from-2015/specification-at-a-glance/	Vocabulary Lists Photophosphorylation Photolysis Non-Cyclic Phosphorylation Chemiosmosis Glycolysis PCR Recombinant Plasmid Restriction Enzymes	Ligase Allele Epistasis Codominance Impulse Action Potential Stimulus Threshold Neurotransmitter