

Subject	Year	Term
Biology	13	2
Topic		
Module 5 – Communication, homeostasis and energy; Module 6 – Genetics, evolution and ecosystems		
Content (Intent)		
Prior Learning (Topic) Module 5 Communication, Homeostasis and Energy; Module 6 Genetics, evolution and ecosystems		
Module 5 - Communication, homeostasis and energy. The importance of the liver, structure and function of the kidney in control of water potential of the blood, pancreas and adrenal glands. Plant responses. Module 6 – Genetics, evolution and ecosystems. Selection, Hardy Weinberg calculation, speciation. Natural and artificial cloning, microbial growth curve, use of immobilised enzymes as biosensors. Manipulating genomes, DNA sequencing, genetic engineering, DNA profiling, ethical issues.		
Future Learning (Topic) Revision and Exam Preparation		
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)	
Module 5 Hormonal control and response to internal and external environments – Principles of homeostasis and negative feedback. Importance of the liver, structure and function of the kidney in control of water potential of the blood, pancreas and adrenal glands. Control of blood glucose concentration Practical – histology of tissues in homeostatic organs Practical – serial dilution to produce calibration curve to calculate glucose concentration in urine. Module 6 – Patterns of inheritance - Hardy Weinberg and types of selection; Manipulating genomes – DNA sequencing, DNA profiling and electrophoresis.	Homework – a mark, A level grade and formative feedback provided. End of topic tests and mock exams (Feb 2023) – A level grading and formative feedback given.	
Module 5 – Hormonal responses, Control of blood glucose concentration. Fight or flight response, Plant responses. Practical – histology of tissues in homeostatic organs Practical – serial dilution to produce calibration curve to calculate glucose concentration in urine. Module 6 – Cloning and biotechnology. Natural and artificial cloning, microbial growth curve, use of immobilised enzymes.	End of topic tests – 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/ Mrs Millers Blog	Vocabulary Lists Impulse Action Potential Stimulus Threshold Sarcolemma Sarcoplasmic Reticulum Actin Myosin T Tubules Nodes Of Ranvier	Neurotransmitter Islets Of Langerhans Insulin Glucagon Phototropism Geotropism biotechnology micropropagation glucose isomerase