Bellerive FCJ Catholic College

Department: A Level Biology **Year Group: 13**

Term	Learning Focus	Key Knowledge and Skills	Assessment	Challenge and Enrichment
1	3. 5 – Energy Transfer and nutrient cycles 3.6– Stimuli and responses 3.6 – Nervous coordination 3.6 - Homeostasis	• Energy and ecosystems • Nitrogen cycle and phosphorus cycle • Microorganisms in recycling • Leaching and eutrophication • Plant and animal responses • Receptors • Control of heart rate • Nervous coordination • Synaptic transmission • Skeletal muscles • Blood glucose control • Negative feedback • Second messenger model • Control of water potential and structure and role of nephrons in the kidney.	Homework on cycles in ecosystems. Homework on receptors and stimuli. Test on stimuli and responses. Required practical 9. Required practical 10. Required practical 11. Homework on glucose regulation. Homework on kidney. Homeostasis test.	Miss Estruch Biology Revision (You Tube) A Level Biology (Further extension Resources) - use videos to review energy transfer and nutrient cycles topic. https://www.youtube.com/watch?v=2ifo_UXJnS8 Independent work tasks – make mind maps and revision notes based on tasks set by teacher. Seneca tasks – Answer questions from online tasks set. Observe and act on feedback. Launchpad learning. (you tube) Research, observe and document your notes on cycles. Answer exam questions and observe feedback and make corrections. Use Launchpad learning online to support learning of nervous coordination and homeostasis topics. Use this information to make mind maps and also summary revision notes. https://www.youtube.com/watch?v=Zpo6IBPheMA https://www.youtube.com/playlist?list=PLkocNW0BSuEFKdjuuwDG1-PpFFFJPT6fr

	3.7 – Genetics	• Inheritance • Populations – gene pool and allele frequency. • Monohybrid and dihybrid inheritance • Hardy Weinberg equation	Homework on inheritance and HW equation Test on inheritance content.	
2	3.7 Genetics 3.8 Gene expression	• Evolution may lead to speciation • Gene mutations • Stem cells • Regulation of transcription and translation • Cancer • Genome projects	Homework on speciation Homework on mutations. Homework on stem cells. Homework on genome projects. Test on gene expression.	Miss Estruch Biology Revision (You Tube) A Level Biology (Further extension Resources) - Use these to make revision notes and a mind map for the genetics topic. https://www.youtube.com/watch?v=4zS1XjdSf70 Independent work tasks; Answer exam style questions and act on feedback. Seneca tasks – answer the online questions and make corrections were appropriate.
3	3.7 Populations in ecosystems	• Ecosystems • Habitats • Communities • Biotic and abiotic factors • Succession • Mark-release-recapture method • Recombinant DNA technology	Required practical 12. Homework on Ecology methods including transects and random sampling.	Miss Estruch Biology Revision (You Tube) - Populations, key terms for Ecology topic – review and make revision notes. https://www.youtube.com/watch?v=g0QoqPGBEkk A Level Biology (Further extension Resources) - answer exam-style questions. Make revision posters and mind maps on Populations and ecosystems. Independent work tasks:

	3.8 Gene technologies	• Identification and diagnosis of heritable conditions • Genetic fingerprinting	Homework on DNA technologies. Test on DNA technologies.	Seneca tasks – answer online questions and make corrections were appropriate. Watch DNA technology videos and genetic fingerprinting videos with Miss Estruch on Youtube. Make revision notes and a mind map to explore the topic in more detail.