

Key Stage 4 Curriculum Map 2020 - 2021

Year 13 AS level Biology

Term 2

Subject: Biology	Year: 13	
Focus/Topic	UAE Links	Home Learning / Reading
YEAR 13 MOCKS		
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<ul style="list-style-type: none"> • Food chains and food webs • Energy transfer between trophic levels • Ecological pyramids • Principles of homeostasis • The principles of feedback mechanisms 	Create a food web of organisms within the UAE.	Guided reading
<ul style="list-style-type: none"> • Chemical and biological control of agricultural pests • Intensive rearing of domestic livestock • Energy and ecosystems end of topic test • The need to control blood glucose concentration • Hormones and the regulation of blood glucose 	Compare a farm in the UAE with a farm in the UK.	Guided reading
<ul style="list-style-type: none"> • The carbon cycle • The greenhouse effect and global warming • The nitrogen cycle • Control of heart rate • Homeostasis end of topic test 	Research and outline diabetes in the UAE.	Guided reading
<ul style="list-style-type: none"> • Use of natural and artificial fertilisers • Environmental consequences of using nitrogen fertilisers • Nutrient cycles end of topic test • Epigenetic control of gene expression • Hormones and RNA interference 	Research what type of fertilisers the UAE use and justify how they could improve their farming practice to make them more sustainable	Guided reading
Half Term		

<ul style="list-style-type: none"> • Studying inheritance • Monohybrid inheritance • Sex inheritance and sex linkage • Totipotency and cell specialism • Control of transcription and translation end of topic test 	Explore why UAE ancestry can be traced back to Africa	Guided reading
<ul style="list-style-type: none"> • Co-dominance and multiple alleles • Dihybrid crosses and gene interactions • Allele frequency and population genetics • Producing DNA fragments • In vitro gene cloning – the polymerase chain reaction 	Why is researching in vitro gene cloning important to the UAE?	Guided reading
<ul style="list-style-type: none"> • Selection • Speciation • Inheritance and selection end of topic test • In vivo gene cloning – the use of vectors • Use of recombinant DNA technology 	Why is researching in vivo gene cloning important to the UAE?	Guided reading
<ul style="list-style-type: none"> • Recombinant DNA technology end of topic test • Unit 3 revision • Unit 4 revision 	Create a summary of how unit 3 and unit 4 link to the UAE	Guided reading
<ul style="list-style-type: none"> • Unit 1 revision • Unit 2 revision 	Create a summary of how unit 1 and unit 2 link to the UAE	Guided reading
End of term 2		