Subject/ Exam Board OCR A	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
Yr 12	 3.2 Water 3.1 Enzyme action 3.1 Biological elements 4.1 Enzyme action 3.3 Carbohydrates 3.5 Lipids 4.2 Factors affecting enzyme activity 3.6 Structure of proteins 3.7 Types of proteins 3.8 Nucleic acids 3.9 DNA replication and the genetic code 4.3 Enzyme inhibitors 3.10 Protein Synthesis 3.11 ATP 4.4 Cofactors, coenzymes, and prosthetic groups 	3.4 Testing for carbohydrates 6.1 Cell cycle 2.1 Microscopy 2.3 More microscopy 6.2 Mitosis 6.3 Meiosis 2.2 Magnification and calibration 2.4 Eukaryotic cell structure 6.4 The organisation and specialisation of cells 2.5 The ultrastructure of plant cells 2.6 Prokaryotic and eukaryotic cells 2.6 Prokaryotic and plant pathogens 5.1 The structure and function of membranes 12.2 Animal and plant diseases	5.2 Factors affecting membrane structure 12.3 The transmission of communicable diseases 5.3 Diffusion 12.5 Non-specific animal defences against pathogens 5.4 Active transport 12.4 Plant defences against pathogens 5.5 Osmosis 12.6 The specific immune system 12.7 Preventing and treating disease 12.7 Preventing and treating disease 12.1 Specialised exchange surfaces 10.1 Classification	 7.2 Mammalian gaseous exchange system 10.2 The five kingdoms 3.3 Measuring the process 10.3 Phylogeny 7.4 Ventilation and gas exchange in other organisms 10.4 Evidence for evolution 10.5 Types of variation 	8.1 Transport systems in animals 8.2 The blood ve 10.6 Recording variation 8.5 The hear 10.7 Adaptation 8.3 Blood, tissue fluid, 11.1 Biodivers 8.4 Transport of oxygen and 11.2 Samplin 11.3 Sampling tech 11.4 Calculating bio

Summer 2

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9.1 Transport systems in dicotyledonous plants
9.2 Water transport in multicellular plants
11.5 Calculating genetic biodiversity
9.5 Plant adaptations to water availability
9.3 Transpiration
11.6 Factors affecting biodiversity
11.7 Reasons for maintaining biodiversity
9.4 Translocation
11.8 Methods for maintaining biodiversity

14.3 Regulation of blood glucose concentration	
14.4 Diabetes and its control 17.1 Energy	ay cycles
13.9 Voluntary and involuntary 24.1 Population size	
muscles 13.2 Neurones 17.2 ATP s	synthesis
13.10 Sliding filament model 13.4 Nervous transmission 22.1 Natur	ral cloning in plants
13.1 Coordination 20.5 Evolution 24.2 Competition	
19.1 Mutations and variation 15.2 Thermoregulation in 24.3 Predator-prey relationships 22.2 Artific	cial cloning in plants
14.1 Hormonal ectotherms 13.5 Synapses 18.1 Glyco	lysis
communication 15.3 Thermoregulation in 13.8 Reflexes	
15.1 The principles ofendotherms24.4 Conservation and18.2 The line	ink reaction
20.6 Species and artificial preservation 18.3 Kreb	s cycle
19.2 Control of gene 24.5 Sustainability	
15.4 Excretion, homeostasis, 16.1 Plant hormones and growth 18.4 Oxida	ative phosphorylation
19.3 Body plans	
13.3 Sensory receptors 21.2 DNA sequencing and analysis 21.2 real responses to ablotic 22.3 Clothing stress	
13.7 Structure and function of 15.5 The structure and function Masai mara 24.6 Ecosystem management – 18.5 Anae	robic respiration Review week
the brain of the mammalian kidney 24.7 Ecosystem management – 18.6 Resp.	iratory substrates
20.1 Variation and inheritance 21.3 Using DNA sequencing	
20.2 Monogenetic inheritance 24.7 Ecosystem management – 22.4 Micro	organisms and biotechnology
13.6 Organization of the osmoregulation 24.0 Examples and 22.5 Micro	organisms modicinos and
nervous system 21.1 DNA profiling Peat bogs bioremedia	ation
14.5 Coordinated responses	a with a sis
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15.8 Kidney failure 16.4 Tropisms in plants 23.1 Ecosystems 17.4 Factor	rs affecting photosynthesis
14.6 Controlling heart rate 14.2 Structure and function of 23.2 Biomass transfer through an	
20.4 Phenotypic ratios the pancreas ecosystem 22.6 Culture Iaboratory laboratory	ring microorganisms in the
21.4 Genetic engineering 16.3 Plant responses to herbivory 16.5 The commercial use of plant	
22.7 Cultu 21.5 Gene technology and	ring microorganisms on an scale
ethics 23.3 Recycling within ecosystems	
23.4 Succession 22.8 Using	immobilised enzymes
23.5 Measuring distribution &	

KS5 Biology Curriculum Summary 2021-22

Yr 13

Study Leave