

Subject - KS5 AQA BIOLOGY

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12	Biological Molecules - Monomers and polymers - Carbohydrates - Lipids - Proteins Cells - Structure of eukaryotic cells - Structure of prokaryotic cells and viruses - Methods of studying cells Required Practical 1: Investigating an enzyme controlled reaction	Biological Molecules - Enzymes - Nucleic acids - Inorganic ions Cells - All Cells arise from other cells - Transport across cell membranes - Cell recognition and immune system Required Practical 2: Preparing a slide and calculating mitotic index Required Practical 3: Investigating the water potential of potato tuber cells	Organisms exchange substances with their environment - Surface area to volume ratio - Gas exchange - Digestion and absorption Genetic information, variation and relationships between organisms - DNA, genes and chromosomes - DNA and protein synthesis - Genetic diversity can arise as a result of mutation or during meiosis Required Practical 4: Investigating the permeability of cell membranes	Organisms exchange substances with their environment - Mass transport in animals Genetic information, variation and relationships between organisms - Genetic diversity and adaptation - Species and taxonomy Required Practical 5: Heart Dissection	Organisms exchange substances with their environment - Mass transport in plants Genetic information, variation and relationships between organisms - Biodiversity within a community - Investigating diversity Required Practical 6: Investigating antibiotics on microbial growth	Internal End-of-Year Examinations

Year 13	Energy transfers in and between organisms • Photosynthesis • Respiration • Energy and Ecosystems • Nutrient Cycles	Homeostasis • Principles of homeostasis and negative feedback • Control of blood glucose concentration • Control of blood water potential	Genetics, populations, evolution and ecosystems • Inheritance • Populations • Evolution may lead to speciation	Genetics, populations, evolution and ecosystems • Evolution may lead to speciation • Populations in ecosystems	Revision and exam preparation	Official Examinations
	Organisms respond to changes in their internal and external environment • Survival and response • Receptors • Control of heart rate	Nervous coordination • Nerve impulses • Synaptic transmission • Skeletal muscles	The control of gene expression • Mutations • Gene expression is controlled by a number of factors	The control of gene expression • Using genome projects • Gene technology		
	Required Practical 7: Using chromatography to investigate plant pigments	Required Practical 8: Investigating dehydrogenase activity Required Practical 9: Investigating yeast respiration	Required Practical 10: Studying maggots in choice chambers Required Practical 11: Testing urine for glucose	Required Practical 12: Investigating the effect of an environmental factor on the distribution of a species		

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