

AQA**START OF TERM 1 NOTES**

3.5	Energy transfers in and between organisms
3.5.1	Photosynthesis
3.5.2	Respiration
3.5.3	energy and ecosystems
3.5.4	nutrient cycles
3.6	Organisms respond to changes in their internal and external environments
3.6.1	Stimuli - internal and external lead to a response Survival and response Receptors Control of heart rate
3.6.2	Nervous coordination Nerve impulses Synaptic transmission Skeletal muscle are stimulated to contract by nerves and act as effectors
3.6.3	Homeostasis is the maintenance of a stable internal environment
3.6.4	Principles of homeostasis and negative feedback Control of blood glucose concentration Control of blood water potential
START OF TERM 2 NOTES	
3.7	Genetics and population
3.7.1	Inheritance
3.7.2	Populations
3.7.3	Evolution may lead to speciation
3.7.4	Populations in ecosystems
3.8	The control of gene expression
3.8.1	Alteration of the sequences of bases in DNA can alter the structure of proteins
3.8.2	Gene expression is controlled by a number of features Most of a cell's DNA is not translated Regulation of transcription and translation Gene expression and cancer
3.8.3	Using genome projects
3.8.4	Gene technologies Recombinant DNA technology DNA in same species and identification/diagnosis of heritable conditions Genetic fingerprinting