

# Yr13 Biology – Unit 3.6

## MAGHULL HIGH SCHOOL – CURRICULUM MAP



		Sequence			
<b>TOPIC (S)</b> <b>Organisms response to changes in their environment</b>	1. Survival and response 2. Receptors 3. Control of heart rate		4. Nerve impulses 5. Synaptic transmission		6. Skeletal muscles are stimulated to contract by nerves and act as effectors 7. Principles of homeostasis and negative feedback 8. Control of blood glucose concentration 9. Control fo blood water potential
	<b>Knowledge &amp; Skills development</b>	<ul style="list-style-type: none"> <li>Define taxis and kinesis</li> <li>Describe the protective effect</li> <li>Identify the basica structures of Pacinian corpuscle</li> <li>Recall the roles of SAN and AVN in the bundle of his</li> <li>Recall the role and locations of chemoreceptors and pressure receptors</li> <li>The factors that influence blood glucose concentration.</li> <li>The role of the liver in glycogenesis, glycogenolysis and gluconeogenesis.</li> <li>The roles of the hypothalamus, posterior pituitary and antidiuretic hormone (ADH) in osmoregulation.</li> </ul>		<ul style="list-style-type: none"> <li>Identify the structure of myelinated motor neuron</li> <li>Describe the factors affecting the speed of conductance: myelination, salutatory conduction, axon, diameter, temperature</li> <li>Label the detailed structure of a synapse and neuromuscular junction</li> <li>Describe the roles of actin, myosin, calcium ions, and ATP in myofibril contractions</li> <li>Interpret information relating to examples of negative and positive feedback</li> <li>use information provided to predict and explain the effects of specific drugs on a synapse.</li> </ul>	
<b>Assessment / Feedback Opportunities</b>	Exam questions – teacher assessed	Exam questions – self assessed	Extended writing task – teacher assessed	Deep marking of required practical in lab books	Topic assessment
<b>Cultural Capital</b>	<ul style="list-style-type: none"> <li></li> </ul>				
<b>SMSC / Promoting British Values</b> <small>(Democracy, Liberty, Rule of Law, Tolerance &amp; Respect)</small>	<ul style="list-style-type: none"> <li>To evaluate the positions of health advisers and the food industry in relation to the increased incidence of type II diabetes.</li> <li></li> <li></li> </ul>				
<b>Reading opportunities</b>	<ul style="list-style-type: none"> <li>Recommended Read: David S. Goodsell: The Machinery of Life</li> </ul>				
<b>Key Vocabulary</b>	Independent Variable, Dependent Variable, Control Variables, Method, Conclusion, Precaution, Evaluation, Reliable, Precision, Valid, Anomaly, Describe, Explain, Compare, Analyse, Calculate, Suggest, Absolute, Uncertainty, Error, Taxis, Kinesis, Tropism, neurone, stimulus, receptor,				

	coordinator, effector, response, autonomic, sympathetic, parasympathetic, photoreceptors, retina, depolarised, hyperpolarised, Dendrons, synapse, summations, myogenic, cardiac, actin, myosin,
<b>Digital Literacy</b>	The use of excel to plot graphs and analyse data MSOffice35 apps including SharePoint
<b>Cross-Curricular Links</b>	Numeracy/Maths – averages (means), reading scales, graph plotting, lines of best fit, using and rearranging equations, using scientific calculators
<b>Careers</b>	Doctors, nurses, wildlife conservationist,