

High Tunstall College of Science Curriculum Intent

Subject: Biology (Separates) Year: 10

Thread 4A— Homeostasis and Response



	Biology Thread 4		Progress		
Topic	Key ideas	R	A	G	
Homeostasis and Response	I can explain the importance of being able to respond to environmental changes and coordinate behaviour				
	I can explain how the nervous system is adapted for its functions, naming the parts of the nervous system				
	I can plan and carry out an investigation in to the effect of a factor such as caffeine or having eyes open or closed on reaction time.				
	I can label a diagram of the brain, and describe the techniques used to map areas of the brain to their functions				
	I can label the structures of the eye and explain the functions of each part				
	I can define the term accommodation				
	I can complete ray diagrams to show normal vision, long sightedness and short sightedness				
	I can describe Myopia and Hyperopia				
	I can explain how glasses can be used to correct defects and what treatments are available.				
Lesson	Learning Focus	Assessment	Key Words		
1	Nervous system	Retrieval of year 9 work, labelling diagrams	Reflex arc, synapse		
2	Reaction time RPA	Practical skills, practice exam questions	Reaction, response, factor		
3	The Brain (Biology only)	Group work, peer assessment	Medulla, cerebral cortex, Cerebellum		
4	The Eye (Biology only)	Self assessment, peer assessment	Accommodation, Cornea, Sclera, lens, retina, Iris		
5	The Eye—correcting vision (Biology only)	Practice exam questions—self assessment	Myopia, Hyperopia		

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Thread 4B— Homeostasis and Response



	Biology Thread 4	Progress		
Topic	Key ideas	R	A	G
Homeostasis and Response	I can describe how Body temperature is monitored and controlled			
	I can describe how hormones control systems of the body and what glands release hormones			
	I can describe how blood glucose is controlled			
	I can compare Type 1 and Type 2 diabetes			
	I can explain how water and nitrogen is balanced in the human body (Biology only)			
	I can explain how the kidneys function in maintaining water balance in the body			
	I can summarise how kidney failure can be treated			

Lesson	Learning Focus	Assessment	Key Words
5	Control of body temperature	Summative questions	Hypothermia, Hyperthermia
6	Human endocrine system	Summative questions and card sorts	Glands
7	Controlling blood glucose 1	Annotate a flow chart of information	Hypoglycaemia, hyperglycaemia
8	Controlling blood glucose 2	Practice exam questions	Hypoglycaemia, hyperglycaemia
9	Maintaining nitrogen and water (Biology only)	Self assessment	
10	Kidneys and ADH (Biology only)	Questioning	
11	Kidney failure treatments (Biology only)	Questioning and summary tasks	Dialysis