

Year 13 A-Level Biology SMR

Learning Programme 1

The LORIC skill focus for this LP is: LEADERSHIP The Moral Virtues focus for this LP are: COURAGE and HUMILITY. Courage - Acting with bravery and overcoming fears. Humility - Having a modest view of oneself. What will I be learning about in this Learning Programme? You are learning about nerves and how nerve impulses are generated and how they bring about contraction in muscles. Where have I seen this learning before? You have learnt about reflex arcs and muscles as effectors in GCSE Biology. What could I use it for? You will use this again if you pursue a degree in Physiotherapy or Medicine.		Literacy: - Capital letters must be used at the start of sentences and for the first letter of proper nouns - Full stops must be used at the end of a sentence - Question marks must be used at the end of a question - Apostrophes should only be used for possession or omission - Days of the week and months must be spelled correctly - Key words must be spelled correctly
In LP1.1, I will know: about the need for communication systems in multicellular organisms and communication between cells by cell signalling; how to describe the structure and functions of sensory, relay and motor neurones.	31/08/26 - (WK 1) Frayer Model Word action potential	Homework Questions on communication systems in multicellular organisms.
In LP1.2, I will know: how to explain the roles of mammalian sensory receptors in converting different types of stimuli into nerve impulses; how to compare the generation and transmission of nerve impulses in mammals.	07/09/26 - (WK 2) Frayer Model Word propagation	Homework Exam questions on nerve impulses.
In LP1.3, I will know: the structure and roles of synapses in neurotransmission; how to demonstrate knowledge of the organisation of the mammalian nervous system. Extended Task.	14/09/26 - (WK 1) Frayer Model Word neurotransmitter	Homework Questions on synaptic transmission.
In LP1.4, I will know: how to explain the structure of the human brain and the functions of its parts; how to evaluate the application of reflex actions in context.	21/09/26 - (WK 2) Frayer Model Word reflex	Homework Questions on the human brain.
In LP1.5, I will know: the structure of mammalian muscle and the mechanism of muscular contraction; how to examine stained sections or photomicrographs of skeletal muscle.	28/09/26 - (WK 1) Frayer Model Word contraction	Homework Exam questions on muscle structure.
In LP1.6, I will know: the structure of mammalian muscle and the mechanism of muscular contraction; describe endocrine communication by hormones and the structure and function of endocrine glands. Extended Task.	05/10/26 - (WK 2) Frayer Model Word excitation-contraction	Homework Exam questions on muscle contraction.
In LP1.7, I will know: how to explain the histology of the pancreas and about how blood glucose is regulated; about the differences between type 1 and type 2 diabetes.	12/10/26 - (WK 1) Frayer Model Word histology	Homework Exam questions on the cross bridge cycle and sliding filament theory.
Resources to support learning: EPC Knowledge Organiser, Synergy, Youtube search OCR Alevel Biology. https://www.thesciencehive.co.uk/the-nervous-system-a-level		
FEET Award Challenge for this Learning Programme: LP1 Year 13 Biology: The nervous system is extremely complex and as result, there are many disorders. Research and create a fact file/video/speech to compare and contrast some disorders.		

