

Year 12 Biology SMR Learning Programme 2

<p>The LORIC skill focus for his LP is: ORGANISATION The Moral Virtues focus for this LP are: COMPASSION and HONESTY Compassion - the quality of feeling pity and concern for the sufferings or misfortunes of others. Honesty - the quality of being truthful.</p>		<p>Literacy:</p> <ul style="list-style-type: none"> • 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 	
<p>What will I be learning about in this Learning Programme? You are learning about the structure of the cell surface membrane and how this controls the permeability of the cell.</p>			
<p>Where have I seen this learning before? You will have learnt about cell membranes and transport across them in GCSE Biology.</p> <p>What could I use it for? You will use this again if you study a BSc (Hons) in Pharmacology.</p>			
In LP2.1, I will know:	21/10/24 - (WK 2)	Key Vocabulary	Homework
lipid structure to link to formation of a membrane; the roles of membranes within the cells and at the surface of cells.		bilayer	Exam questions on lipids.
In LP2.2, I will know:	04/11/24 - (WK 1)	Key Vocabulary	Homework
the fluid mosaic model of membrane structure and the roles of its components; factors affecting membrane structure and permeability.		permeability	Exam questions on cell membranes.
LP2 RLW, I will:	11/11/24 - (WK 2)		
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.		review	Exam questions on factors affecting the membrane.
In LP2.3, I will know:	18/11/24 - (WK 1)	Key Vocabulary	Homework
how to carry out practical investigations into membrane permeability using beetroot and colorimetry; diffusion as the passive movement of molecules across membranes.		passive	Revision in preparation for assessment.
Extended Task.			
In LP2.4, I will know:	25/11/24 - (WK 2)	Key Vocabulary	Homework
how to carry out practical investigations into the factors affecting diffusion rates in model cells made from agar; about active transport of molecules across membranes.		diffusion	Exam questions on diffusion.
In LP2.5, I will know:	02/12/24 - (WK 1)	Key Vocabulary	Homework
how to plan practical investigations into the effects of solutions of different water potential on plant and animal cells; how to evaluate and analyse the osmosis practical.		osmosis	Exam questions on active transport.
In LP2.6, I will know:	09/12/24 - (WK 2)	Key Vocabulary	Homework
the sections of the cell cycle and the control of the cell cycle; the significance of mitosis and meiosis in life cycles.		cell cycle	Exam questions on osmosis.
Extended Task.			
In LP2.7, I will know:	16/12/24 - (WK 1)	Key Vocabulary	Homework
how to investigate mitosis- root tip squash (PAG1), examine microscopic sections of plant tissue showing the cell cycle and stages of mitosis; how cells of multicellular organisms are specialised.		differentiation	Exam questions on required practical.
Resources to support learning:			
Knowledge organiser https://www.thesciencehive.co.uk/cell-membranes-ocr https://pmt.physicsandmathstutor.com/download/Biology/A-level/Notes/OCR-A/2-Foundations-in-Biology/2.6-Cell-Division-Cell-Diversity-Cellular-Organisation/Summary%20Notes%20-%20Topic%202.6%20OCR%20(A)%20Biology%20A-Level.pdf			
FEET Award Challenge for this Learning Programme:			
You have learnt about biological molecules and cell membranes. Create a poster of a cell membrane, linking your knowledge of biological molecules to its structure.			

