

Year 9 Science

Learning Programme 3

The LORIC skill focus for his LP is: RESILIENCE The Moral Virtues focus for this LP are: RESPECT and JUSTICE		Literacy: <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
Respect - treat others how you would wish to be treated yourself. Justice - our College rules are fair and reasonable.		
What will I be learning about in this Learning Programme? Comparing microscopes to view plant and animal cells and evaluating stem cell uses, the processes of diffusion, active transport and osmosis.		
Where have I seen this learning before? Properties and uses of metals in KS2; microscopes, plant and animal cells and the process of diffusion in year 7		
What could I use it for? Microscopes, plant and animal cells and movement of substances in GCSE and A-Level biology.		

In LP3.1, I will know:	06/01/25 - (WK 2)	Key Vocabulary	Homework
the principles of light and electron microscopes; how to compare the similarities and differences between plant and animal cells; how to set up and use a light microscope to OBSERVE plant and animal cells and RECORD scale magnification;		Microscope	Learn spellings

In LP3.2, I will know:	13/01/25 - (WK 1)	Key Vocabulary	Homework
similarities and differences between prokaryotic and eukaryotic cells; how to describe specialised animal and plant cells and EXPLAIN the functions of these cells; how to describe differentiation of plant and animal cells.		Eukaryotic	Learn definitions

In LP3.3, I will know:	20/01/25 - (WK 2)	Key Vocabulary	Homework
how to compare the different types of stem cell and DESCRIBE how they can be used to treat medical conditions; how to explain therapeutic cloning and DESCRIBE some issues and benefits of stem cell use; how to calculate surface area to volume ratio and make links to the necessity of exchange systems.		Differentiation	Knowledge organiser flipper

In LP3.4, I will know:	27/01/25 - (WK 1)	Key Vocabulary	Homework
how to complete a formative assessment and pupil response task; what diffusion is and explain the factors that affect diffusion; how to describe active transport and explain the factors that affect it. Extended Task.		Stem cell	10 core questions

In LP3.5, I will know:	03/02/25 - (WK 2)	Key Vocabulary	Homework
how to describe osmosis and its effects on animal cells; how to plan and write a method to carry out an osmosis practical; how to carry out an investigation into osmosis of potatoes/carrots.		Meristems	Literacy task

In LP3.6, I will know:	10/02/25 - (WK 1)	Key Vocabulary	Homework
EXPLAIN which pairs of forces are acting on an object; APPLY Hooke's Law to make quantitative predictions with unfamiliar materials; investigate the relationship between a force and the extension of a spring.		Diffusion	Revision task

LP3 RLV, I will:	24/02/25 - (WK 2)		10 core questions
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.			

In LP3.7, I will know:	03/03/25 - (WK 1)	Key Vocabulary	Homework
Hooke's law Practical; EXPLAIN why drag forces and friction slow things down in terms of forces; how to complete a formative assessment and pupil response task. Extended Task.		Active transport	Extended exam question

Resources to support learning:	Knowledge Organiser, Science booklets, BBC bitesize, Synergy
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FFET Award Challenge for this Learning Programme:	Write an article on the uses of STEM cells, what can they be used for and what are the arguments for and against the use of STEM cells.
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