

Year 13 BTEC Applied Science

Learning Programme 1

The LORIC skill focus for his LP is: LEADERSHIP			Literacy Non-Negotiables: • 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 • Vocabulary to be taught using the Frayer model	
The Moral Virtues focus for this LP are: COURAGE and HUMILITY.				
Courage - Acting with bravery and overcoming fears. I will show courage by answering a question in class even when I'm not 100% sure of the answer.				
Humility - Having a modest view of oneself. I will show humility by admitting mistakes and asking for help when needed.				
What will I be learning about in this Learning Programme?				
The process of transporting molecules across the cell membrane and maintaining homeostasis. The properties and uses of waves, including in musical instruments and the electromagnetic spectrum.				
Where have I seen this learning before?				
In GCSE combined and Triple science Biology and Physics.				
What could I use it for?				
To further studies into Biology and medicine, or Physics at university and future careers or apprenticeships in the communication industry.				
In LP1.1, I will know:		01/09/26 - (WK 1)	Key Vocabulary	Homework
the structure and function of the cell membrane; the process of diffusion, osmosis and active transport.			Cell membrane	Exam style questions on transport of molecules
In LP1.2, I will know:		07/09/26 - (WK 2)	Key Vocabulary	Homework
the methods used to transport molecules, such as endocytosis and exocytosis; the structure and function of enzymes.			Enzyme	Exam style questions on Enzymes
In LP1.3, I will know:		14/09/26 - (WK 1)	Key Vocabulary	Homework
the factors that could affect enzyme action; how to investigate the factors that affect enzyme action.			Denature	Exam style questions on factors affecting enzyme action
Extended Task.				
In LP1.4, I will know:		21/09/26 - (WK 2)	Key Vocabulary	Homework
the purpose of homeostasis in the human body; the process of negative and positive feedback loops.			Homeostasis	Exam questions on homeostasis
In LP1.5, I will know:		28/09/26 - (WK 1)	Key Vocabulary	Homework
how the nervous and endocrine system work together to maintain homeostasis; the influence of lifestyle on homeostasis.			Endocrine	Exam questions on maintaining homeostasis
In LP1.6, I will know:		05/10/26 - (WK 2)	Key Vocabulary	Homework
how to describe the key features of a wave using the terminology: periodic time, wave speed, wavelength, frequency, amplitude, oscillation; the concepts of displacement, coherence, path difference and superposition of waves as applied to diffraction gratings.			Oscillation	Exam questions on wave properties
Extended Task.				
In LP1.7, I will know:		12/10/26 - (WK 1)	Key Vocabulary	Homework
how to use diffraction gratings to form line emission spectra; how stationary waves are formed and apply the concepts and applications of stationary waves to musical instruments.			Diffraction	Exam questions on diffraction.
Resources to support learning:				
Seneca				
EPC Knowledge organisers				
BTEC Applied Science help Youtube channel				
FFET Award Challenge for this Learning Programme:				
To complete and write up a scientific investigation and write it up for peer review.				

