The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 12 Applied Science SRS
Learning Programme 5

The LORIC skill focus for his LP is: COMMUNICATION.
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?
About cells, their structure and function, how they make tissues and how these tissues perform their functions with specific focus on nervous and muscular tissue.

Where have I seen this learning before?
You have covered cells and tissues in KS3 science and in GCSE.

What could I use it for?
You will use this learning if you do a degree in medicine or any biology based degree.

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 LP5.1, I will know: 12/05/25 - (WK 1)	Key Vocabulary	Homework
cell theory and how microscopy played a major role in developing this; how to calculate magnification in different scenarios and how to prepare a sample for magnification by staining.	Magnification	Exam questions on cell theory.

In LP5.2, I will know: 19/05/25 - (WK 2)	Key Vocabulary	Homework
the ultrastructure of eukaryotic and prokaryotic cells and how to classify bacteria through gram staining; different cells are specialised for their function and be able to describe these adaptations.	Ultrastructure	Exam questions on specialised cells.

LP5 RLW, I will: 02/06/25 - (WK 1)		
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.		

In LP5.3, I will know: 09/05/25 - (WK 2)	Key Vocabulary	Homework
different tissues, their functions and how to identify them; sliding filament theory to explain muscle contraction. Extended Task.	Myofibril	Exam questions on muscle contraction.

In LP5.4, I will know: 16/06/25 - (WK 1)	Key Vocabulary	Homework
how to complete an assessment in my learning so far; improve my knowledge through a pupil response task.		

PRT Task 1

In LP5.5, I will know: 23/06/25 - (WK 2)	Key Vocabulary	Homework
the structure of neurones and how resting potential is maintained; how an action potential is propagated.	Neurones	Exam questions on neurones.

In LP5.6, I will know: 30/06/25 - (WK 1)	Key Vocabulary	Homework
how myelination speeds up transmission of an impulse; the series of events that occur at a synapse. Extended Task.	Myelination	Exam questions on synapses.

In LP5.7, I will know: 07/06/25 - (WK 2)	Key Vocabulary	Homework
the dopamine hypothesis for the cause of Parkinson's disease and the treatment of these symptoms.	Dopamine	Exam questions to review learning from this LP.

PRT Task 2

Resources to support learning:
https://quizlet.com/gb/571940482/btec-applied-science-unit-1-biology-flash-cards/
Synergy, booklets, exercise books, knowledge organisers.

FFET Award Challenge for this Learning Programme:
Assist the science department in an after school club or work with the lab technician to gain experience of working in a lab.