

Year 10 Biology

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? How cells are structured and how to observe these using microscopes. Where have I seen this learning before? You have learnt about cell structure and microscopes in KS3. What could I use it for? You will use this knowledge in A-level Biology and Applied Science BTEC.		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: the differences in magnification and resolution between a light and electron microscope; the similarities and differences between plant and animal cells; how to carry out Required Practical 1: observe plant and animal cells and calculate overall magnification of a light microscope.	31/08/26 - (WK 1) Frayer Model Word Resolution	Homework Sparx science task
In LP1.2, I will know: examples of specialised animal and plant cells, linking structure and function; similarities and differences in plant and animal cell differentiation.	07/09/26 - (WK 2) Frayer Model Word Differentiation	Homework Sparx science task
In LP1.3, I will know: in detail, the hierarchy of organisation in a multicellular organism, using a range of examples and understand why this hierarchy must exist in a multicellular organism; the differences between prokaryotic and eukaryotic cells; which substances move into and out of cells and the process of diffusion. Extended Task.	14/09/26 - (WK 1) Frayer Model Word Prokaryote	Homework Sparx science task
In LP1.4, I will know: how to predict water movement during osmosis explain the words flaccid, plasmolysed and turgid; how to carry out Required Practical 3: Osmosis and analyse results.	21/09/26 - (WK 2) Frayer Model Word Isotonic	Homework Sparx science task
In LP1.5, I will know: why active transport is important; the features of exchange surfaces; the role of chromosomes and explain the importance of mitosis in maintaining chromosome number.	28/09/26 - (WK 1) Frayer Model Word Surface area	Homework Sparx science task
In LP1.6, I will know: the different types of stem cell and explain how they can be used to treat medical conditions; about therapeutic cloning and justify the use of stem cells. Extended Task.	05/10/26 - (WK 2) Frayer Model Word Cloning	Homework Sparx science task
In LP1.7, I will know: the organisation and role of cells, tissues, organs and organ systems focusing on digestive system; how to explain the roles of organs in the human digestive system and where they are situated; the roles played by different digestive enzymes.	12/10/26 - (WK 1) Frayer Model Word Organisation	Homework Sparx science task
Resources to support learning: EPC Knowledge Organiser BBC Bitesize - Biology unit 1 revision Synergy		
FEET Award Challenge for this Learning Programme: Research a science career of your choice and create a profile of the skills and qualifications you would need to work in that role.		

PRT Task 1

PRT Task 2