



Curriculum Map 2023 – 2024 – KS5 Science



WJEC Medical Science

Year 12

Term	Assessments	Topics	Skills	Personal Development
Autumn	Two tests at the end of each half term.	Unit 1 1. LO1 understand biological principles	Recognise structure of human cells from electron micrographs Use a colorimeter to convert qualitative data into quantitative data.	Develop and demonstrate a deep appreciation of the skills, knowledge and understanding of scientific methods Develop competence and confidence in a variety of practical, mathematical and problem-solving skills Recognise the role of membranes as a binding site for medicinal and recreational drugs and develop ideas around how the movement of molecules across membranes can lead to the development of novel solutions to the movement of natural and synthetic molecules in and out of cells.
		Unit 1 2. LO2 Understand function of human physiological systems	Carry out dissection of animal organs safely using the correct apparatus. Create microscope slides.	Opportunities to develop interleaving skills to apply understanding of concepts in novel situations,
		Unit 1 3. LO3 Understand how external factors impact on the body	Explain how lifestyle may affect major body systems Assess how lifestyle may impact health Explain how pathogens can affect body systems explain how noninfectious diseases affect body systems	Develop an understanding of how lifestyle and environmental factors affect the health of an individual but how this impacts society and the demands of the NHS.
		Unit 1 4. LO4 Be able to report on human health	Process and analyse data Make evidence based conclusions Create powerpoint presentations to present data to others.	Using mathematical skills to calculate biological values.
		Unit 3 LO1 Understand research methods	Processing, analysing and interpreting qualitative and quantitative experimental results Measurement of gradients and intercepts Safe and ethical use of instruments for dissection of an animal or plant organ	Use knowledge and understanding to pose scientific questions, Define scientific problems, present scientific arguments and scientific ideas Understand how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society

			Production of scientific drawings from observations with annotations	
		Unit 3 LO2 be able to collect data	Plan to collect data Produce documentation to collect data Obtain data	Produce clear documents that will capture sufficient, suitable and relevant data Give a clear, detailed and relevant evaluation of how ethical issues affect research
Term	Assessments	Topics	Skills	Personal Development
Spring	Controlled assessments set as per WJEC.	Unit 3 1. LO3 understand data analysis	Use raw data and a selection of statistical methods used to analyse data	Using mathematical skills to calculate biological values. Analysing and interpreting various examples of primary and secondary data sets.
		Unit 3 LO4 be able to process data	Analyse data using statistical methods Make conclusions from Data Evaluate procedures Use mathematical notation	Make detailed and appropriate conclusions from data Make conclusions which are clearly and logically linked to the evidence
		Unit 3 LO5 be able to communicate information	Using mathematical skills to calculate biological values. Processing, analysing and interpreting qualitative and quantitative experimental results Using online and offline research skills including websites, textbooks and other printed scientific sources of information and correctly cite sources of information	Clearly communicates relevant information to the customer Consistently uses appropriate scientific and technical language Uses appropriate style and structure Uses accurate spelling, punctuation and grammar
		Unit 2 LO1 understand the function of physiological measurement tests	Explain principles of physiological measurement tests Explain significance of data obtained from physiological measurements Describe limitations of physiological measurement testing	Give an accurate and coherent explanation showing detailed reasoning of the principles of a specified physiological measurement test
		Unit 2 LO2 understand how to deal with patients	Explain importance of patient confidentiality Describe conduct towards patients	Give an accurate and coherent explanation of the importance of patient confidentiality
Term	Assessments	Topics	Skills	Personal Development
Summer	Controlled assessments set as per WJEC.	Unit 2 LO3 be able to carry out physiological measurement tests	Plan to perform physiological measurement tests Use physiological testing equipment Record results from physiological measurement	Give a detailed and suitable plan that covers all key aspects of how to perform physiological measurement tests.

			tests	
		<p>Unit 2 LO4 be able to report on physiological measurement testing</p>	<p>Process data from physiological measurement tests.</p> <p>Make evidence based conclusions about the “health” of individuals</p> <p>Evaluate information from physiological measurement tests</p> <p>Communicate in writing</p>	<p>Give a clear and detailed description of the limitations of physiological measurement testing.</p>