



Curriculum Map cover sheet

Subject: Medical Science	Year Group: 12 & 13	Key Stage: 5
Links to prior learning Medical Science lessons are carefully designed to build on the foundation of knowledge students developed at GCSE. To support students with a smooth transition from GCSE to A Level we have the following in place: - Structured curriculum planning: All links to prior knowledge are clearly annotated in the department's schemes of work, ensuring that each lesson connects meaningfully to what students have previously learned. - Reinforcement of core concepts: Teachers explicitly reference relevant GCSE material to help students make connections and strengthen their understanding of more advanced content.	Retrieval Practice To help reinforce key knowledge and promote long-term memory retention, our students take part in weekly retrieval activities such as ten written questions as a starter and mini white board activities. Retrieval of key concepts is built into the lessons as often knowledge from a previous lesson or topic is needed to understand the new concepts being taught.	Adaptive teaching strategies To support your child's progress, a range of evidence-based strategies are used consistently in lessons: - Scaffolded exam practice: Students are provided with structured exam questions that may include key vocabulary prompts, hints, or gap-fill exercises to build confidence and understanding. - Verbal support: Teachers offer verbal guidance during class discussions to help students articulate their thinking and deepen their understanding. - Ongoing assessment: Regular formative assessments are used to identify areas for improvement. Targeted feedback is provided to help address any learning gaps. - Cold calling for engagement and assessment: All students are included in cold-calling questioning during lessons. - Collaborative learning opportunities: Activities such as Think-Pair-Share are used to encourage discussion, collaboration, and peer support, helping students refine their ideas and learn from one another.

Literacy There are many key terms in the course which are taught explicitly as they are encountered. The meaning of those terms are tested in regular retrieval practice. In the coursework elements of the course there is extensive writing and scientific reporting. The structure of this is explained to students. Students have opportunities to practise this with sample assessment material.	Oracy Students are encouraged to give full answers out loud in lessons. Sentence starters and prompts are provided to help with this.	Numeracy In this course students will be taught and assessed on the following skills: Calculation of averages. Calculation of percentage changes. Drawing and interpretation of lines of best fit. Interpreting graphical data to establish trends Predicting extrapolations of data
Careers across the Curriculum We hold medical and STEM careers events where various professionals come into school and speak to students, answering their questions about routes into the variety of science related careers that are available.	Wider Curriculum opportunities There are strong connections between Medical Science and the fortnightly Personal Development (PD) sessions students attend. Topics such as health and disease, genetics and bioethics often overlap	Super Curriculum  Super Curriculum - SCIENCE
Assessment and feedback Regular assessment and targeted feedback are essential in helping students monitor their progress and identify areas for improvement. Feedback is delivered in a variety of forms, including written comments on assessed work, verbal feedback during class discussions or individual support, and whole-class feedback highlighting common strengths and areas for development. Examples of forms of assessment, for which feedback is given: <i>Cold calling in lessons</i> Teachers strive to actively engage all students by directing questions to each individual at least once per lesson, ensuring consistent checks on both understanding and participation. <i>Weekly Retrieval Practice:</i>		

Short quizzes are used at the start of lessons to reinforce key knowledge. Students receive immediate verbal feedback to address misconceptions and strengthen understanding.

Mini Whiteboard Checks:

Mini whiteboards are used in every lesson to carry out quick, low-pressure checks of student understanding, enabling teachers to identify and address whole class and individual learning needs immediately.

Mock Examinations:

Full mock exams are held at key points in the academic year, giving students experience with exam-style questions and conditions.

Medical Science AAQ	Unit 1 - Human Physiology, Anatomy and Pathology	Unit 2 - Health Issues and Scientific Reporting	Unit 3 - Practical Microbiology and Infectious Diseases	Unit 5 - Biomedical Science
Content covered	In this unit, you will study how the human body functions at a cellular and tissue level. You will go on to gain understanding of the various organ systems that comprise the human body – nervous, endocrine musculoskeletal, cardiovascular, respiratory, renal and digestive systems – and gain some insight into how these systems interrelate. This unit will give you a foundation for biological study in medical science, as you will gain knowledge of how the human body functions. You will also gain some insight into the factors that affect health and how an understanding of such factors may help to make a positive impact upon our lives.	In this unit, you will explore a number of key areas in the field of medical science, with a focus on health issues faced by the human population today to explore their impact on the world we live in. You will gain an understanding of diagnostic techniques, before focusing on health issues themselves alongside associated initiatives including, cancer and various aspects of immune dysfunction, to the increasingly important world of genetics. You will develop your critical thinking and analysis skills, including data analysis, learning how to assess the reliability of sources of published scientific information.	In this unit, you will carry out your own investigation into the effect of antimicrobial agents on the growth of microorganisms. This will enable you to begin to understand the role of clinical microbiologists. To carry out your investigation you will explore a variety of tests using good laboratory practice. You will first develop an understanding of the significance of microorganisms as pathogens. You will link understanding of cell and tissue adaptation, function of biological molecules and the relationship between the structure, function and processes of key body systems with your knowledge of immune response to understand how diseases develop.	This unit will help you understand three key areas of biomedical science: haematology, health screening, histology/cytology, and urinalysis. The analytical and diagnostic testing carried out in these three areas supports other health professionals in screening, diagnosing, monitoring disease progression and treatment. In this unit you will concentrate on biomedical science in relation to the human body, but many of the same techniques are used in veterinary science. You will have opportunities to investigate urinalysis and how it can be used to diagnose and treat disease.
How is this assessed?	Exam: 80 marks, 1 h 30 min Students will be able to resit the exam and the better mark counts towards the qualification.	Exam: 80 marks, 2 h Students will be able to resit the exam and the better mark counts towards the qualification.	Internally assessed unit: assessed by a Pearson Set Assignment Brief (PSAB), which is set by Pearson, marked by teachers and subject to external standards verification.	Internally assessed unit: assessed by a Pearson Set Assignment Brief (PSAB), which is set by Pearson, marked by teachers and subject to external standards verification.
Percentage of the course	25%	33%	25%	17%
When is it taught?	Year 12	Year 12	Year 13	Year 13