




## YEAR 13 Unit 4

### 'An ambitious curriculum that meets the needs of all' Medium Term Planning - Topic: Unit 4

<b>Curriculum Intent</b>	<b>Developing knowledge from GCSE Biology or GCSE Combined Science, pupils will be taught, following exam board guidelines, the following this topic:</b>
<b>Skills/National Curriculum Links</b>	<ul style="list-style-type: none"><li>• Develop knowledge and understanding how medications are chosen by practitioners</li><li>• Develop an understanding of the factors which may impact the adherence to a medical regimen</li><li>• Develop an understanding of how medications interact with body systems, other medication or foods</li><li>• To be able to compare the various methods of administration of medications</li><li>• Develop an understanding of the molecular basis for medications and how they impact body systems</li><li>• Develop an understanding of infective agents</li><li>• Discuss how medication may lose its effectiveness</li><li>• Understand the distribution and fates of medicine in the body</li><li>• To describe adverse reactions to medications</li><li>• Develop an understanding of cancer and cancer treatments</li><li>• To be able to communicate effectively with an audience</li><li>• To be able to work effectively as a team</li></ul>
<b>Spiritual, moral, social, and cultural development</b>	<p><b>SMSC:</b> Consideration of the impact of lifestyle on disease, factors that affect individual and population health.</p> <p><b>PSHE/British Values:</b> Individual responsibility and health decision making, ethical and GDPR considerations</p> <p><b>Skills Builder:</b> Report on health: communication using appropriate language style and accuracy, analyse data in qualitative and quantitative formats</p>
<b>Numeracy</b>	<p><b>Process data</b></p> <ul style="list-style-type: none"><li>• graphical methods, calculations</li></ul> <p><b>Graphical methods</b></p> <ul style="list-style-type: none"><li>• scatter diagrams, line graphs, trend lines, standard deviation, normal distribution</li><li>• bar charts</li></ul> <p><b>Calculations</b></p> <ul style="list-style-type: none"><li>• expressions in decimal and standard form</li><li>• interchange ratios, fractions and percentages</li><li>• find arithmetic means</li><li>• make order of magnitude calculations</li><li>• substitute numerical values into algebraic equations and solve them using appropriate units for physical quantities</li><li>• translate information between graphical and numeric form</li><li>• determine the slope of a linear graph</li></ul> <p><b>Significant figures</b></p> <ul style="list-style-type: none"><li>• expresses information to appropriate number of significant figures</li></ul>
<b>Literacy</b>	<p><b>Vocabulary Tier 2:</b> Medication, Cancer, benefit, adherence, diagnosis, control, side effects, risk, impaired</p> <p><b>Vocabulary Tier 3:</b> proto-oncogene, tumour suppressor, agonists, antagonists, administration, absorption, hepatic, metabolism, fates, polypharmacy, accumulation, elimination, renal excretion, biliary excretion, half-life</p> <p><b>Reading:</b> Students are given opportunity to develop their skills in specified tasks that develop disciplinary literacy. Throughout the Medical Science course they develop their understanding of the requirements of exam questions and the key terminology in questions. This unit encourages pupils to research a range of medications, their uses and their implications and effects.</p> <p><b>Writing:</b> Students construct answers independently and through class teaching. Their answers range from single word answers to the planning and writing of extended answers that require linking of multiple concepts from a topic or across topics. These often develop students' ability to construct written evaluations of contrasting situations, or data, where the use of comparative connectives are required. Their coursework provides opportunity for wider analytical writing, based on scenarios and data provided by the exam board. In this unit pupils will produce patient information leaflets about medications, they will also be expected to produce a 20 minute group presentation about administration methods of a range of medications and produce a patient support document for use in an oncology ward</p>

<b>Becoming future ready</b>	<p><b>Careers/Employability:</b> Medical Science students from Crompton House progress on to a wide range of undergraduate degrees, degree apprenticeships and into work. Opportunities to develop effective communication skills, concise written work, following written and verbal instructions as well as their problem solving skills are all key skills, particularly for future health care professionals. Data from the unit is taken from Public Health websites to consider the spread of disease in populations.</p> 
<b>Adaptation</b>	Throughout this topic, quality first teaching will provide adaptive teaching accessible to all students:
<b>QFT/SEND Provision</b>	<p><b>By product:</b> Assessments have opportunities for students to achieve all grades, with structured questions and opportunities for development of extended writing for all abilities.</p> <p><b>By Intervention:</b> by providing different levels of supervision and support in theory and in practical lessons.</p> <p><b>By Progressive Questioning:</b> exploring students' understanding through interactive dialogue.</p> <p><b>By Grouping:</b> according to prior attainment, gender, social preference.</p> <p><b>By Task:</b> Pupils are involved in the identification of targets which are meaningful to them and in the selection of an appropriate task to develop specific skills further.</p> <p><b>By Offering Optional Activities:</b> In class or as homework, to extend learning.</p> <p>This QFT/SEND provision will be explicit within the lesson-by-lesson schemes of work.</p>
<b>Implementation Curriculum Delivery</b>	To be able to:
<b>Learning Outcomes (Knowledge)</b>	<ul style="list-style-type: none"> <li>• Describe the function of main body systems</li> <li>• Understand how body systems are tested to ensure the health and function of the system</li> <li>• Compare experimental and normal data</li> <li>• Understand the implications of the data obtained</li> <li>• Convey the information to a range of audiences</li> </ul>
<b>Current learning to be developed in the future within:</b>	Unit 4 and 5
<b>Assessment</b>	Refer to assessment maps for formative and summative assessment opportunities.
<b>Impact</b>	Attainment and Progress – Refer to assessment results / data review documentation.