

# Yr12 Medical Science – Unit 1

## MAGHULL HIGH SCHOOL – CURRICULUM MAP



|                                                                          | Sequence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>TOPIC (S)</b><br><b>Cardiovascular and Respiratory Systems</b>        | 1. Circulatory system overview<br>2. Cardiac Cycle<br>3. Controlling heartbeat<br>4. Cardiac Cycle and interpreting data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 5. Blood vessels<br>6. The blood<br>7. Disorders of the cardiovascular system | 8. Anatomy of the respiratory system<br>9. Gas exchange surface<br>10. Spirometry traces<br>11. Disorders of the respiratory system                                                                                                                                                                                                                                                                                                                                          |
| <b>Knowledge &amp; Skills development</b>                                | <ul style="list-style-type: none"> <li>Describing the cardiac cycle</li> <li>Describe how the cardiac cycle is controlled in terms of the sequence of electrical activity through the heart</li> <li>Interpreting data regarding the cardiac cycle from graphs and electrocardiograms</li> <li>Comparing the structure and role of blood vessels</li> <li>Describing symptoms and treatments of various disorders of the cardiovascular system including bruises, pressure sores, physiological shock, cardiovascular disease leading to atherosclerosis, stroke and heart attack. Also bradycardia, tachycardia and atrial fibrillation</li> </ul> |                                                                               | <ul style="list-style-type: none"> <li>Be able to describe the anatomy of the respiratory system including the role of specific tissues and other structures that allow efficient gas exchange</li> <li>Understanding and interpreting spirometry traces and other data to calculate to pulmonary ventilation</li> <li>Be able to describe the symptoms and treatments of respiratory disorders such as asthma, bronchitis, chronic obstructive pulmonary disease</li> </ul> |
| <b>Assessment / Feedback Opportunities</b>                               | <b>Formative Assessment</b><br>Teacher questioning<br>Quizzes<br>Exam style questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                               | <b>Summative assessment</b><br>Half Termly Assessments<br>Mock Exams                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Personal Development (Including British Values, RSE, Citizenship)</b> | <ul style="list-style-type: none"> <li><b>Personal Development:</b> Collaborative problem solving</li> <li><b>Respect and Tolerance:</b> conflict of interest and other concepts with regards to ethical issues in Biology</li> <li><b>Healthy Lifestyles:</b> Having an understanding of the effects of drugs</li> </ul>                                                                                                                                                                                                                                                                                                                           |                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Reading opportunities</b>                                             | Subject specific vocabulary introduced before reading of related texts<br>Word etymology from Latin and Greek roots<br>Reading of simple and complex sentences, paragraphs, articles<br>Scientific writing                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Key Vocabulary</b>                                                    | Independent Variable, Dependent Variable, Control Variables, Method, Conclusion, Precaution, Evaluation, Reliable, Precision, Valid, Anomaly, Describe, Explain, Compare, Analyse, Calculate, Suggest, Absolute, Uncertainty, Error, Diffusion, Atherosclerosis, Bradycardia, Tachycardia, Spirometry, Pulmonary, Respiratory                                                                                                                                                                                                                                                                                                                       |                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| <b>Cross-Curricular Links</b> | Numeracy/Maths –reading scales, interpreting graphs , interpreting data, using scientific calculators<br>Sport – Human anatomy involving the structure and role of the musculoskeletal system<br>Health and Social Care – Understanding how disorders impact everyday life, |
| <b>Careers</b>                | Forensics, Anthropology, Archaeology, Biological Scientists, Microbiology, Biochemistry, Pathology, Nursing , Physiotherapy, Radiology, Sports Scientist, Radiologist                                                                                                       |