

Subject	Year	Term
Biology	12	3
Topic		
Cell Recognition & Immunity		
Content (Intent)		
Prior Learning (Topic) Year 9 GCSE Topic B3 Infection and Response, Year 12 Biological Molecules, Year 12 Cell Structure, Year 12 Proteins, Enzymes and Digestion		
<p>Understanding of pathogens and antigens. Antigenic variation. Phagocytosis of pathogens and their destruction by lysozymes. Cell mediated immunity, the role of antigen presenting cells and helper T cells and activated helper T Cells. Humoral immunity, clonal selection of B cells in response to an antigen. Definition, structure and action of antibodies. Plasma and memory cell roles in secondary immune responses. Vaccination, vaccination programs and herd immunity. Passive and active immunity. Structure of HIV and its replication in helper T cells. AIDS. Why antibiotics are ineffective against viruses. Monoclonal antibodies, their use in targeting drugs and medical diagnosis. Monoclonal antibodies and the ELISA test. Ethical issues associated with the use of vaccines and monoclonal antibodies.</p>		
Future Learning (Topic) Year 13 Gene Technologies		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p>A series of taught lessons covering the key aspects of the topic. Examination style questions to test understanding.</p>	<p>4 Standard Homeworks: Phagocytosis and B Cells Antibodies HIV & T Cells Vaccination</p> <p>End of unit test: Cell Recognition & Immunity topic.</p>	
How can parents help at home?		
Look at the topic specific resources on the VLE		
Helpful further reading/discussion		
Reading Ten Drugs: How Plants, Powders, and Pills Have Shaped the History of Medicine	Vocabulary Lists <i>Pathogen</i> <i>Antigen</i> <i>Antibody</i> <i>Helper T-Cell</i> <i>B Cell</i>	Careers Links Medicine Pharmacology

	<i>Clonal Selection</i>	
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