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| **What will we be learning?****Year 12 Communicable Diseases** | **Why this? Why now?**Previous Learning Future Learning Enquiry ProcessesAnalyse Patterns, Draw conclusions, Present data, Justify opinions, Collect data, Present data, Plan variables | **Key Words:****Active immunity** **Allergen** **Antibody** **Antibody:antigen complex****Antigen** **Antigen binding site****Antigenic variability****B cell (B lymphocyte)****Cellular immunity****Clone** **Constant region****Cytotoxic T cell****Helper T cell****Herd immunity****Humoral immunity****Immunity** **Memory cell****Non-specific immunity****Passive immunity** **Pathogen** **Phagocyte****Phagocytosis** **Phagosome****Plasma cell****Receptor** **Specific immunity****T cell (T lymphocyte** **Vaccination** **Variable region** |
| **What will we learn?*** About the different types of pathogen that can cause communicable diseases in plants and animals and how they are transmitted
* How plants defend against pathogens
* The primary non-specific defences against pathogens in animals
* The structure and mode of action of phagocytes and how to draw cells observed in blood smears
* The structure, different roles and modes of action of B and T lymphocytes in the specific immune response
* The structure and general functions of antibodies and an outline of the action of opsonins, agglutinins and anti-toxins
* The differences between active and passive immunity, and between natural and artificial immunity
* Autoimmune diseases
* The principles of vaccination and the role of vaccination programmes in the prevention of epidemics
* Possible sources of medicines and the benefits and risks of using antibiotics to manage bacterial infection.

**Misconceptions in this topic** |
| **What opportunities are there for wider study?**CareersHorticulture Biochemistry Fisheries Work Nursing Medicine Laboratory Work Teaching Dentistry Pharmacology Biotechnology Veterinary Work Paramedical ScienceSTE(A)M https://highcliffe.sharepoint.com/sites/LearnSTEM |
| **How will I be assessed?**End of topic assessment PAG 7.1 |