**Curriculum Overview for Biology**

**Year 10**

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| **Half Term 1: Organisation and Infection & Disease**  **Substantive Knowledge:**  Structure and function of xylem, phloem and root hair cells  Transpiration stream as a transport system  Communicable diseases – Spread methods, reduction and prevention, reproduction.  Viral diseases – Measles, vaccinations, HIV and the immune system, Tobacco mosaic virus and impact on plants.  Bacterial diseases – Salmonella effects and causes, Gonorrhoea treatment, causes, spread.  **Disciplinary Knowledge:**  Analysis of data  Importance of prevention and cure  Developing scientific arguments | Books | Skim and Scan of source information  Decoding terms  Etymology of key terms |
| Speech | Xylem, phloem, transpiration, root, pathogen, virus, bacteria, |
| Checklist RTL | Recall questions to start every lesson  Recall test  Review sheet  End of unit assessment |
| Home | Revision Card preparation for every lesson  Recall test  Review sheet  Repetition of use of revision cards for end of unit assessment |
| **Half Term 2: Infection and Response**  **Substantive Knowledge:**  Fungal diseases – Rose black spot effects and treatment.  Protist diseases – Malaria spread and prevention.  Human defence – Non-specific and WBCs.  Vaccination – How it works, why we do it.  Antibiotics and painkillers – Use, how they work, fact that painkillers don’t kill pathogens.  Monoclonal antibodies (Triple) – Production, use, benefits.  Plant disease (Triple) – Detection methods, identification, infection types, effects.  **Disciplinary Knowledge:**  Drug discovery and development – Plants and microorganisms, pharma industry synthesis, trials and testing. The importance of testing  Analysis of graphical data – antibody levels  Process of identifying plant disease | Books | Skim and Scan of source information  Decoding terms  Etymology of key terms |
| Speech | Fungi, protist, symptom, phagocyte, lymphocyte, body defence, clinical trial, antibody, antigen |
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