**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 cellsTranspiration stream as a transport systemCommunicable 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 dataImportance of prevention and cureDeveloping scientific arguments | Books | Skim and Scan of source informationDecoding termsEtymology of key terms |
| Speech | Xylem, phloem, transpiration, root, pathogen, virus, bacteria,  |
| Checklist RTL | Recall questions to start every lessonRecall testReview sheetEnd of unit assessment |
| Home | Revision Card preparation for every lessonRecall testReview sheetRepetition 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 testingAnalysis of graphical data – antibody levelsProcess of identifying plant disease | Books | Skim and Scan of source informationDecoding termsEtymology of key terms |
| Speech | Fungi, protist, symptom, phagocyte, lymphocyte, body defence, clinical trial, antibody, antigen |
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