

B3 Infection and response	RAG
3.1 Communicable diseases	
Explain how diseases caused by viruses, bacteria, protists and fungi are spread in animals and plants.	
Define the term pathogen	
Explain how bacteria and viruses may reproduce in the body and why they make you feel ill	
Give examples of how the spread of diseases can be reduced	
Know that Measles is a viral disease and describe the symptoms	
Explain the effects of HIV and how it is transmitted	
Describe tobacco mosaic virus (TMV)	
Know that Salmonella food poisoning is spread by bacteria ingested in food, or on food prepared in unhygienic conditions. Describe it's symptoms.	
Know how Gonorrhoea is a transmitted and how its spread can be reduced.	
State the cause of Gonorrhoea and describe the symptoms and how it is treated	
Describe rose black spot and state its cause	
Know how rose black spot is spread in the environment and how it can be treated	
Describe malaria and state its cause	
Know how malaria is spread and how to reduce the spread of the disease	
Define some of body's natural defences to infection	
Explain to role of white blood cells	
Describe the process of vaccination	
Explain "herd immunity"	
State what antibiotics can treat and explain the development of antibiotic resistance bacteria	
Define painkillers	
Explain why it is difficult to develop drugs that kill viruses	
Know that traditionally drugs were extracted from plants and microorganisms and give some common examples including who discovered Penicillin and from what	
State that most new drugs are synthesised by chemists in the pharmaceutical industry. However, the starting point may still be a chemical extracted from a plant.	
For new medicinal drugs explain the stages in preclinical and clinical trial	
Define placebo	
Explain double blind trials	
3.2 Monoclonal antibodies (biology only)	
Explain how they are produced	
Name uses of monoclonal antibodies both diagnostic and therapeutic	
3.3 Plant disease (biology only)	
Know how plant disease is detected and identified	
Plants can be infected by a range of viral, bacterial and fungal pathogens as well as by insects.	
Plants can be damaged by a range of ion deficiency conditions:	
Explain plant physical defence responses	
Explain chemical plant defence responses	
Explain plant mechanical defence adaptations.	