

# Review B3 Infection and Response

<b>Can you...?</b>			
<b>3.1 Communicable diseases</b>			
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 the symptoms of salmonella food poisoning			
Know how Gonorrhoea is 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 the 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			
<b>3.2 Monoclonal antibodies (biology only)</b>			
Explain how they are produced			
Name uses of monoclonal antibodies both diagnostic and therapeutic			
<b>3.3 Plant disease (biology only)</b>			
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.			