Communicable – Infectious diseases which are passed between individuals

Non communicable - Non-infectious, caused by genes, environmental factors and lifestyle

**BU3 Infection and response**



Malaria is caused by a Protist called Plasmodium. The plasmodium are injected into people when they get bitten by mosquito’s (the vector). Malaria is often fatal. To prevent the spread of Malaria any stagnant water should be drained to prevent Mosquito’s laying their eggs. People should also sleep under nets.

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| Stages in testing drug | Procedure for testing drug |
| 1 Preclinical | Test drugs on human cells and tissues  |
| 2 Preclinical | Test drug on live animals to test efficacy (if it works) and toxicity (how harmful it is) |
| 3 Clinical | Human volunteers, firstly on healthy people, then on people with illness.  |

Vaccination involves injecting dead or weakened pathogens into the body. This stimulates the white blood cells to produce antibodies which ‘remember’ the pathogens in case the person gets infected again in the future. If this happens, the body responds much faster









**BU3 Infection and response Triple Only**

**Tripk**

 **Monoclonal antibodies**

|  |  |
| --- | --- |
| Plant disease | Effect on plant |
| Tobacco Mosaic Virus | Discoloured and curled leaves, stunted growth, yellow streaks on leaves |
| Aphids (greenfly) | Decreased growth, mottled leaves, low yields |
| Black spot fungus | Black or purple on the upper surface of leaves |
| Nitrate deficiency | Stunted growth |
| Magnesium deficiency | Yellow leaves (Chlorosis) |



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| **Examples of plant defences** |
| **Physical defences** | **Mechanical defences** | **Chemical defences** |
| Layers of dead cells around stems (bark) | Thorns and hairs | Production of antibacterial chemicals |
| Tough waxy cuticles | Drooping leaves when touched | Production of poisons |
| Cellulose cell walls | Mimicry |  |