Topic 3 Infection and Response

Humans

I can define the following terms….

1. Pathogen
2. Vaccine

I can identify…...

1. what examples of Viral, Bacterial, Fungal and Protist diseases
2. the symptoms of Measles
3. a method to control the spread of Salmonella in poultry
4. which organism the heart drug digitalis originates from
5. which organism the painkiller aspirin originates from
6. which organism the painkiller Penicillin originates from
7. all the steps in the drug trail process, identifying why each step is needed (including what a double blind trial is)
8. examples of the use of monoclonal antibodies

I can describe…..

1. how bacteria and viruses may reproduce rapidly inside the body
2. how measles virus is spread
3. the effect of HIV on the human body
4. how HIV is spread
5. how Salmonella food poisoning is spread
6. the symptoms of Salmonella poisoning
7. how Gonorrhoea is spread
8. the symptoms of Gonorrhoea
9. how Gonorrhoea is treated or prevented from being spread
10. the life cycle of the malarial protest, including the mosquito
11. the symptoms of malaria
12. the methods of controlling the spread of malaria
13. The role of antibiotics and painkillers in treating disease

I can explain….

1. How the methods that viruses, bacteria, protists and fungi are spread in animals and plants
2. How bacteria and viruses make us fill ill
3. How the various
4. How the nonspecific defence systems of the human body defend itself against the entry of pathogens, including the skin, nose, trachea and bronchi and stomach
5. How phagocytes and lymphocytes defend against pathogens
6. The effect of vaccination has on someone if the same pathogen re-enters the body
7. How the spread of pathogens can be reduced by immunising a large proportion of the population.
8. The importance of treating specific bacteria with specific antibiotics.
9. Why it is difficult to develop drugs that kill viruses
10. How monoclonal antibodies are made
11. How monoclonal antibodies can be used for diagnosis, to locate or identify specific molecules in a cell or tissue or to treat a disease.
12. Why monoclonal antibodies are not yet as widely used as everyone hoped

Plants

I can define the following terms….

1. Pathogen
2. Vaccine
3. Chlorosis in leaves

I can identify…...

1. A list of different of symptoms of a plant disease
2. Deficiency symptoms in plants grown in conditions where nitrates or magnesium supplies are limited.
3. The type of pathogen associated with Rose black spot
4. A specific plant that is particularly affected by Tobacco mosaic virus (TMV)
5. A number of physical defence responses that plants have to resist invasion by pathogens or aphids.
6. Examples of plants producing antibacterial chemicals as a chemical defence response to infection.
7. Examples of plants producing poisons as a chemical defence response to deter herbivores.
8. Examples of mechanical adaptations in plants to prevent them from being eaten.

I can describe…..

1. A number of different ways of identifying what type of plant disease it is after observing symptoms
2. The Symptoms of Rose black spot
3. How Rose black spot is spread from plant to plant
4. Methods to treat Rose black spot
5. The Symptoms of Tobacco mosaic virus (TMV)

I can explain….

1. Why chlorosis occurs in plants that are nitrate deficiency
2. Why chlorosis occurs in plants that are magnesium deficiency
3. How Rose black spot limits the rate of growth in plants
4. How Tobacco mosaic virus (TMV)limits the rate of growth in plants