**Infectious Disease**

1. **Disease**
   1. Infection
      1. Defined as:
      2. The number of micro-organisms around us is so \_\_\_\_\_ that infection is a \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_
   2. Disease
      1. Defined as:
      2. \_\_\_\_\_\_\_\_\_ results in \_\_\_\_\_\_\_\_ when:
   3. Pathogen
      1. Defined as:
      2. Study of the causes of \_\_\_\_\_\_\_\_\_\_ is called \_\_\_\_\_\_\_\_\_\_\_\_
2. **Spread of disease**
   1. A few micro-organisms find the human body an \_\_\_\_\_\_\_\_\_ environment
      1. Some form a \_\_\_\_\_\_\_\_\_\_\_ relationship
      2. Some can cause \_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_
   2. Pathogens require only the \_\_\_\_\_\_\_\_\_\_ to enter the body
      1. Some enter through a \_\_\_\_\_\_\_\_\_ in the \_\_\_\_\_\_\_\_\_\_
      2. Some spread through \_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_
      3. Some spread through \_\_\_\_\_\_\_\_\_\_\_ water
      4. Some spread through \_\_\_\_\_\_\_\_\_\_\_ handled by an \_\_\_\_\_\_\_\_\_\_ person
      5. Some spread by infected animals, e.g. \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_
      6. Some spread through \_\_\_\_\_\_\_\_\_\_\_ contact
3. **Viral disease**
   1. Examples:
   2. As the virus reproduces it destroys the \_\_\_\_\_\_\_\_\_ that it infects, causing the \_\_\_\_\_\_\_ of the disease
   3. Prevention
      1. Only successful protection is the \_\_\_\_\_\_\_\_\_\_ of the infection
      2. To do this, the body’s \_\_\_\_\_\_\_\_\_ system must be \_\_\_\_\_\_\_\_ to prevent infection
      3. Vaccine
         1. Defined as:
         2. Only protect if used \_\_\_\_\_\_\_\_ the \_\_\_\_\_\_\_\_\_\_
   4. Interferon
      1. Defined as:
      2. Function by:
4. **Bacterial disease**
   1. Louis Pasteur was the first person show that \_\_\_\_\_\_\_\_ can cause \_\_\_\_\_\_\_\_
   2. Only a \_\_\_\_\_\_ types cause disease, some examples:
   3. Bacteria can cause disease in two ways:
   4. Methods to fight bacterial disease
      1. Stimulate the \_\_\_\_\_\_\_\_ system through \_\_\_\_\_\_\_\_
      2. Antibiotics:
   5. Methods to control bacterial infection
      1. Sterilization:
         1. Heat: most bacteria can be killed in \_\_\_\_\_\_ water
         2. Disinfectant: \_\_\_\_\_\_\_\_ solution that \_\_\_\_\_\_ bacteria
      2. Food processing
         1. When bacteria “\_\_\_\_\_\_\_\_\_\_” our food, they cause it to \_\_\_\_\_\_\_\_\_\_
         2. Preventing spoilage:
            1. Refrigeration: slows the \_\_\_\_\_\_\_\_\_\_ of bacteria
            2. Sterilization by \_\_\_\_\_\_\_\_\_\_
            3. Canning: \_\_\_\_\_\_\_\_\_\_ food is sealed into \_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_ containers
            4. Chemical treatments that inhibit bacterial growth in food:

1. **Antibiotic resistance**
   1. Antibiotics function by \_\_\_\_\_\_\_\_\_\_ with processes essential for bacterial \_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_
      1. Prevent building or repairing \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_
      2. Prevent making \_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_
   2. Whether the bacteria is \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_ effects antibiotic \_\_\_\_\_\_\_\_\_
      1. Gram staining studies the \_\_\_\_\_\_\_\_\_\_\_\_\_ nature of the bacterial cell wall
      2. Gram-positive bacteria are coloured \_\_\_\_\_\_\_\_\_\_ because they take up the stain \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_
         1. Their cell walls are made of:
      3. Gram-Negative bacteria are coloured \_\_\_\_\_\_\_\_\_\_ because they take up the stain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
         1. There cell walls are made of:
   3. Antibiotic resistance arises from \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ lowering the antibiotics \_\_\_\_\_\_\_\_\_\_\_ by:
      1. Reducing drugs ability to \_\_\_\_\_\_\_\_\_\_ the cell
      2. Changing the \_\_\_\_\_\_\_\_\_ site of the \_\_\_\_\_\_\_\_ within the cell
   4. The spread of resistance is accelerated by \_\_\_\_\_\_\_\_\_\_ gene transfer through \_\_\_\_\_\_\_\_\_\_\_
   5. Why should you always finish your antibiotics?
2. **Bacteriaphage**
   1. Bacteriophage:
      1. Definition:
      2. Sketch:

**<https://www.youtube.com/watch?v=d-v8uSG2ewk>**