Viruses and Monerans

1. Virus –
2. Alive? –
3. Why study –
4. Composition and structure
5. Nucleic acid –
6. Protein coat –

* Envelope –

1. Classification
2. Shape –

* Helical –
* Polyhedral –
* Binal –
* Fillovirus –

1. Host –

* Animal -
* Plant -

* Bacteria -

* Other -

1. Function –

* Retrovirus –

1. Discovery –
2. Dmitri Ivanovsky –
3. Martinus Beijerinck –
4. Viral diseases in humans –
5. Viral replication –
6. Host –
7. Lytic cycle –
8. Attachment –
9. Entry –
10. Replication –
11. Assembly –
12. Release –
13. Lysogenic cycle –
14. Attachment –
15. Entery –
16. Replication –
17. Stimulus –
18. Non-viral particles –
19. Viroids –

* Causes –

1. Prions –

* Causes –

1. Human uses of viruses
2. Vaccines –

* Examples –

1. Genetic engineering



1. Agriculture



1. Kingdom MONERA –
2. Structure
3. Cell membrane and cell wall –
4. Slime capsule –
5. Nuclear area –
6. Plasmids –
7. Ribosomes –
8. Flagella –
9. Classification –
10. Archaebacteria –
11. Methanogens –



1. Thermophiles –



1. Halophiles –
2. Eubacteria –
3. Subclassification
4. Food source

* Autotroph –
* Example –
* Heterotroph –

1. Shape –

* Coccus –
* Bacillus –
* Spirillum –

1. Cell arrangement –

* Diplo –
* Strepto –
* Staphylo –
* Tetrad –
* Sarcina –

1. Others –
2. Bacterial processes
3. Food source

* Photosynthesis –
* Chemosynthesis –
* Parasites –
* Saprophytes –

1. Respiration –

* Aerobic –
* Anaerobic –

1. Reproduction

* Asexual –
* Sexual –
* Conjugation –
* Transformation –

1. Favorable Conditions
2. Survival
   * + Endospores –
3. Negative effects of bacteria
4. Pathogenic –
   * + Bacterial diseases of humans
     + Endotoxins –

* Example –
* Exotoxins –
* Example –

1. Food spoilage –

* Prevention –

1. Benefits of bacteria
2. Human body –
3. Fuels –
4. Foods –
5. Other –
6. Disease –
7. Infectious –
8. Germ –
9. Communicable –
10. Direct contact –
11. Indirect contact –
12. Air born –
13. Animal bites

* Malaria –
* Bubonic plague -
* Lyme disease –
* Rabies -

1. Contaminated food or water

* Amoebic dysentery –
* Salmonella –
* Botulism -

1. Body’s defenses
2. 1st line –

* Example –

1. 2nd line –

* White blood cells –
* Fever –

1. 3rd line –

* Interferon –
* Antibodies –

1. Immunity –
2. Inborn –
3. Acquired –

* Get disease –
* Vaccination –
* Serum shot –
* Antibiotics –
* Chemotherapy –