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 –
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* Examples –
1. Genetic engineering
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1. Agriculture
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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 –
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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 –