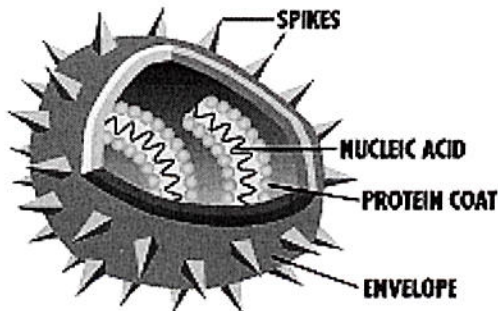


Biol 11 Ch 17 REVIEW: Viruses and Monerans

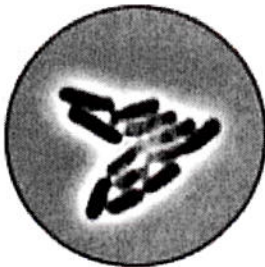
1. How does the classification system designed by Carolus Linnaeus work? What are the names of the different *taxon* in order?
2. What is a virus? Why are they not classified as “alive”?
3. What are bacteriophages? Draw and label the structure of a bacteriophage.
4. How does a virus “infect” a host cell?
5. Label the following diagram of a virus.



6. What two life cycles are exhibited by viruses? Draw and label the two cycles to describe their main differences.
7. How might a lysogenic virus actually benefit an organism?
8. Using a similar concept, how might a prophage be detrimental to its host, even if it is not actively causing the cell to manufacture viruses?
9. What is a retrovirus? What type of genetic material does it have? What enzyme does it employ? What infamous diseases are caused by some retroviruses?
10. Are viruses able to infect any type of cell, from any type of organism? Explain.
11. Why is it so difficult for our bodies to kill the HIV virus?
12. What term is used to describe something (like viruses) that are not made of cells?
13. What is a vaccine and how does it work to provide future immunity?
14. What is a prokaryotic cell? How is it different from a eukaryotic cell?
15. Sketch and label a typical prokaryotic cell.
16. Describe the three different forms of obtaining nutrients and energy.
17. What is the difference between aerobic and anaerobic respiration?
18. Describe the three terms; facultative anaerobe, obligate anaerobe and obligate aerobe.
19. In terms used in question #11 and #13, what is the most common type of bacteria that exist today?
20. In terms of phyla, what is the largest group of bacteria?
21. What unique characteristics do each of the phyla cyanobacteria, archaeobacteria and prochlorobacteria exhibit that qualifies them to be in separate phyla?
22. Sketch and label the three different shapes of bacteria.
23. What is Gram staining? Describe the procedure that you would have to follow in order to fix and Gram stain a sample of bacteria.
24. How do bacteria get around (move)?
25. What is the difference between chemosynthetic and photosynthetic autotrophs?

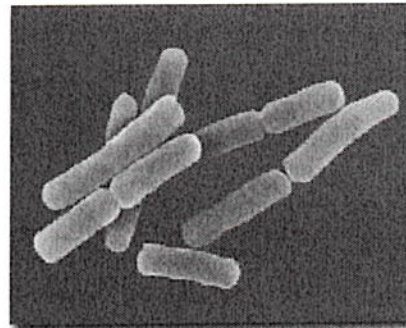
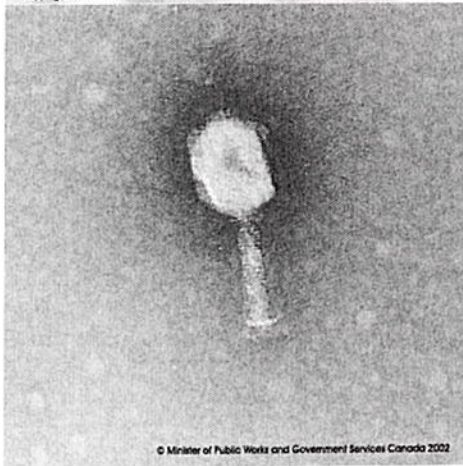
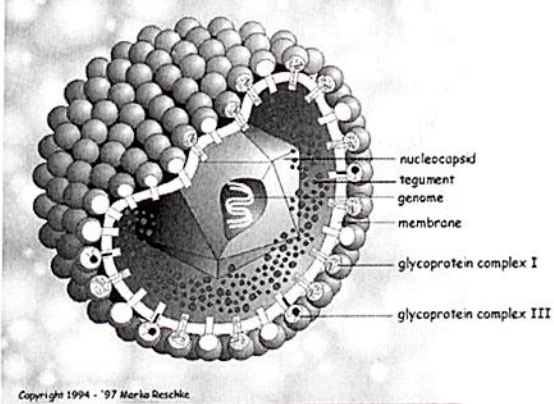
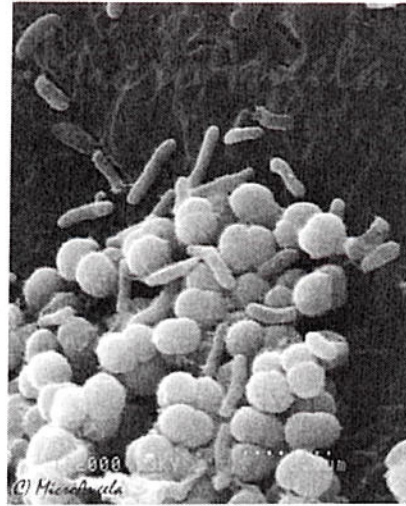
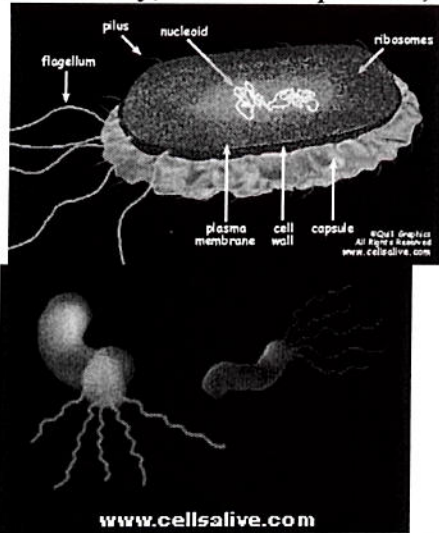
26. How are bacteria able to cause us harm?
27. What defence mechanisms do we have against bacterial infection?
28. How do bacteria reproduce?
29. How can asexual reproduction be an advantage over sexual reproduction?
30. Label the following diagram of a typical prokaryotic (bacterial) cell.

31. Use the field diameters the class calculated to approximate how long each of the following creatures are:



32. How much have the creatures actually been magnified in the drawings?

33. Identify, as much as possible, the following creatures:



Bacillus Bacteria