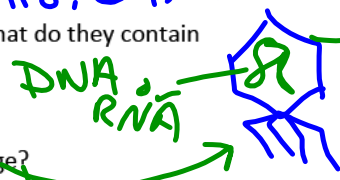
Micro Bio Review

Bacteria

1. Examples(most common ones)
2. Prok/Euk: who is who and define
3. Type of chromosomes
4. How do they reproduce, be specific
5. Difference between: Auto/hetero/chemoauto/photoauto
6. Uses of bacteria for good

7. Viruses

8. Examples (most common ones)
9. Structure of a virus, what do they contain



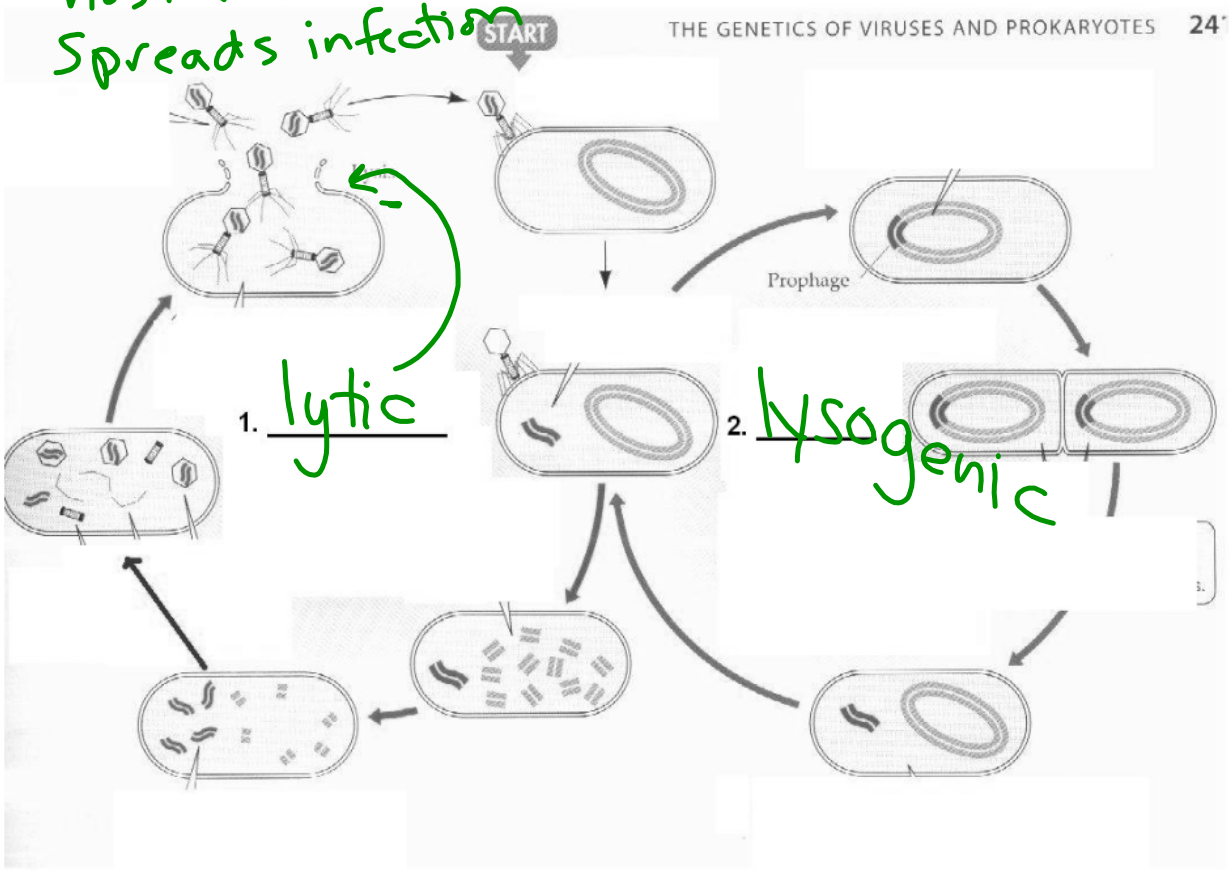
10. What is a bacteriophage?
11. Although plants are also affected by bacteria, why not as much as animal cells?

12. Compare and Contrast the following

Lytic Cycle — Lysogenic Cycle

viral reprod.
host cell dies
Spreads infection

viral DNA hides in host genome



Immune System

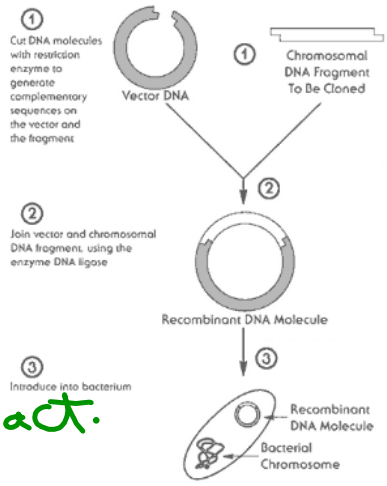
13. 1st, 2nd line of defense

1st skin

2nd saliva, tears, cilia, mucus

14. What is Bacterial Recombination

genetic engineering human insulin gene into bact → bact make insulin

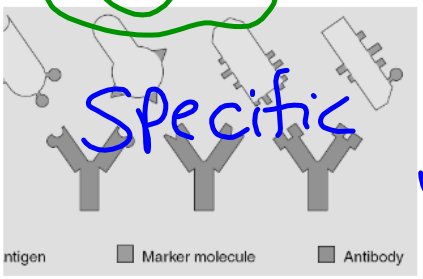


15. Antibiotics: How do they work and who are affected by them?

work only on bact.
destroy the cell wall or stop mitosis

16. How does the body attack bacteria?

bact
phagocytes eat bact.
Antibodies - WBC



17. How are Antibodies & antigen related?

foreign protein (bact. virus)

WBC attach & disables antigen

18. Immune response, and benefit of each

non-specific

a. Inflammation (histamine) swell prevent spread of anything (bug bite, pollen)

b. Fever
① kill bact. (denate protein)
② ↑ blood flow, ↑ immune response

19. Specific defense by what type of cells and (generally) how do they work?

Antibodies

20. What is a phagocyte and how does it work?

"eats" bacteria

21. What is a vaccine and how does it work?

inject small amt, dormant to build up antibodies (Antigen: bact or virus)

22. What occurs if you are exposed to a virus that you have gotten a vaccine for?

Antibodies

23. What are antibiotics used for and how do they work?

24. Immunity:

a. Vaccines: what are they and how do they work?

b. Natural immunity vs. acquired

genetic → getting sick

25. Survivability of virus vs. bacteria

need host

survive longer

26. Why are some viruses, like HIV and Influenza so difficult to create a vaccine for?

mutating

27. What happens to a virus after you have been exposed to it? Does it ever go away?

lysogenic (hide)

28. What is the relationship between chicken pox and shingles?

lytic/lysogenic

Data Analysis

29. Scientific Method

30. Zone of inhibition

31. Bacterial resistance

32. What is genetic recombination? How does it work?