

Bio 21 MICROBIOLOGY

1. What are some benefits of bacteria?

probio, N fix, antibiotics, food, decomposition

2. What is Bacterial Recombination

genetic engineering / recombining genes

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

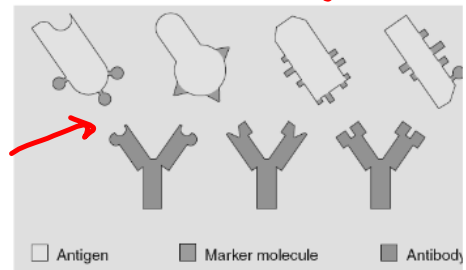
only good on Bacteria
- break cell wall

WBC 4. How does the body attack bacteria?

make Antibodies to attach & inactivate Antigen

5. How are Antibodies & antigen related?

specific
lock/key



6. Immune response, and benefit of each

a. Inflammation (histamine)

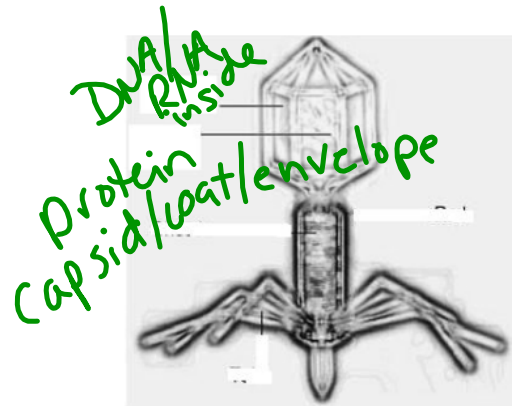
swelling, slows spread of invader

b. Fever

1. ↑ speed of immune response

2. may kill bacteria at higher temp.

7. Virus Structure

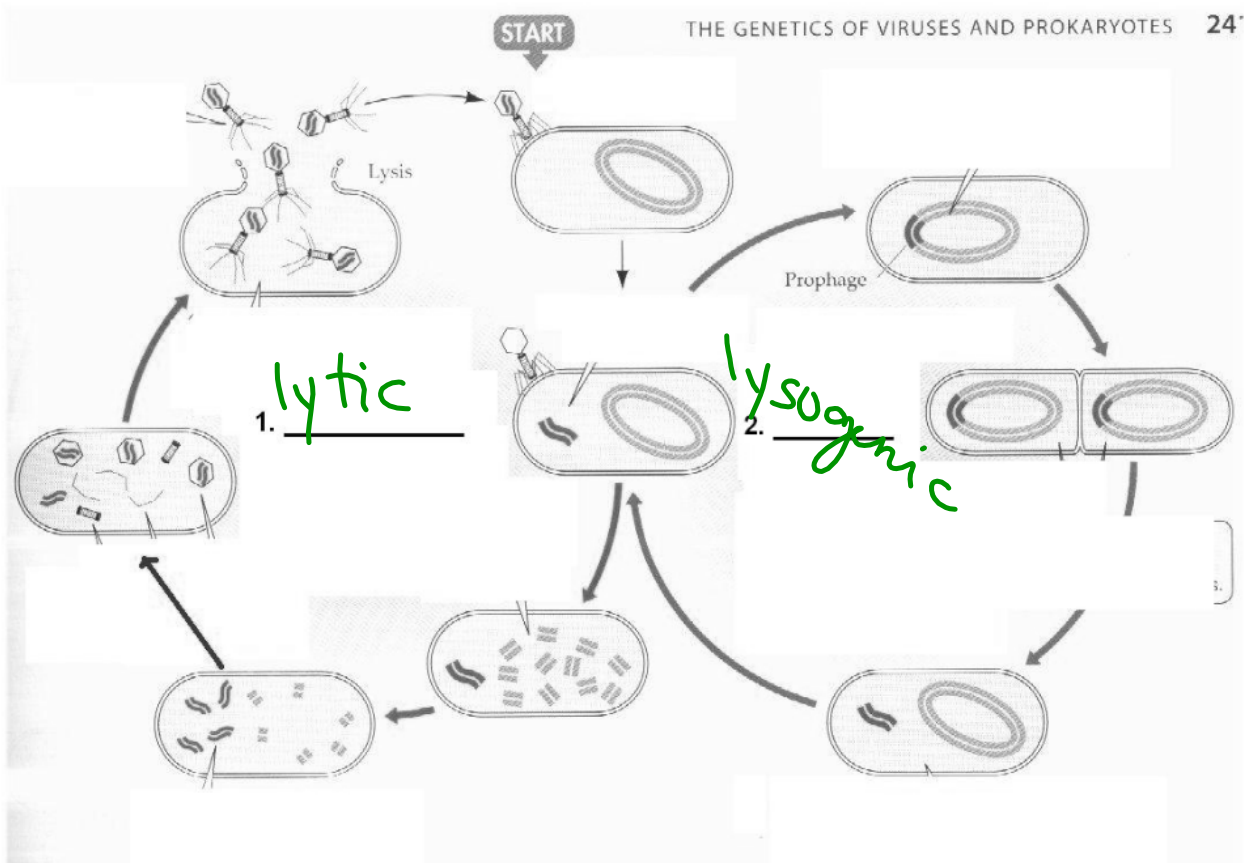


8. Lytic Cycle

Lysogenic Cycle

Viral reproduction

viral DNA goes dormant + hides in host DNA



9. Immunity:

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

Small/dormant/weak virus/bacteria
- immune system creates antibodies

b. Natural immunity vs. acquired

genetic mutation

was me sick already
vaccine

10. Survivability of virus vs. bacteria

generally can't survive outside host

survives well outside body

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

high mutation rate

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

hides in genome - lysogenic

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

chx pox stays hidden then



chx pox after lysogenic cycle

14. Bacteriology Experiment / zone of inhibition

DV area of no growth

