Immune System
1. What is the function of the immune system?
2. What is a pathogen? What are some examples of pathogens?
3. Compare and contrast innate immunity and acquired immunity.
4. What are the four examples of our first line of defense?
5. What are three types of cells that are involved in acquired immunity?
6. List the steps of an inflammatory response.
7. What is pus made of?
8. Where are the T cells and B cells produced?
9. What are the three types of T cells? What do they do?
10. Which type of B cell produces antibodies?
11. How does an antibody act on a pathogen?
12. What is the function of B-memory cell?
13. What is the advantage of receiving vaccination?
15. How do bacteria infect human body cells?
16. How can bacterial and viral diseases be treated respectively?
17. What does AIDS stand for? What does HIV stand for?
18. Which part of the normal immune response does a HIV break down?
19. HIV can be transmitted through the exchange of which two media?

Viruses & Bacteria
1. Compare and contrast the genetic materials in viruses and bacteria.
2. a) Compare and contrast the protein coats in viruses and bacteria.
   b) What is the function of the protein coat?
3. Why are viruses considered nonliving?
4. What is the difference between DNA and RNA viruses?
5. What is a retrovirus? What kind of enzyme does it have?
6. Compare and contrast viroids and prions.
7. What is a bacteriophage? Draw a bacteriophage and label its components.
8. Compare and contrast the lytic cycle and the lysogenic cycle.
9. What are the five steps involved in lytic cycle?
10. What is a provirus or prophage?
11. How are bacterial cells different from human cells?
12. Compare and contrast bacterial cells and plant cells.
13. What is plasmid? In which type of cell is it found? Where is it located in the cell?
14. Compare and contrast pili and flagella.
15. Draw a) staphylococcus, and b) streptobacillus.
16. Describe the two reproductive methods in bacteria.
17. What are the three ways bacteria can obtain nutrients?
18. Where do obligate anaerobes live?
19. What does “pathogenic” mean? How can bacteria be harmful to the cells they infect?
20. What is the difference between a “vehicle” and a “vector” in transmitting pathogens?
21. What is the difference between antibiotics and antiseptics?
22. What are some ways bacteria are beneficial? What is nitrogen fixation?
23. What is an endospore? Why is it an adaptation for bacteria?