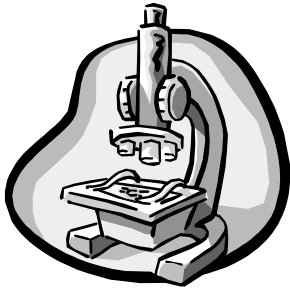


Science 10-Biology

Activity 9

Worksheet on Protists, Bacteria and Viruses



10

Name _____

Due Date _____

Show Me Hand In

Correct and Hand In Again By _____

NOTE: Use material on pages 347-350 in Science Probe Text and from the Power Point Project called "Microorganisms"

1. Microorganisms which have many of the organelles of other cells and have a nucleus are called _____

2. Give examples of 4 different kinds of protists. _____

3. Do protists contribute significantly to the world's oxygen supply? _____

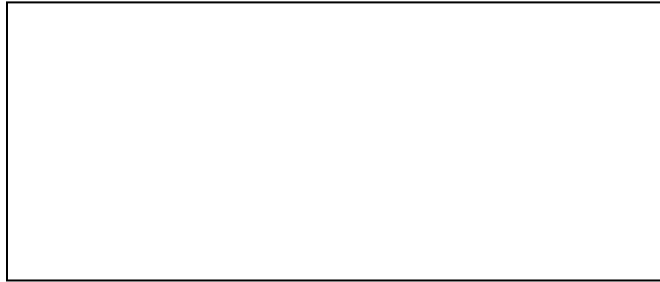
4. What disease do amoebas cause in humans? _____

5. How is *Giardia* transmitted from animals to humans? _____
_____ *Giardia* is also sometimes called _____ fever.

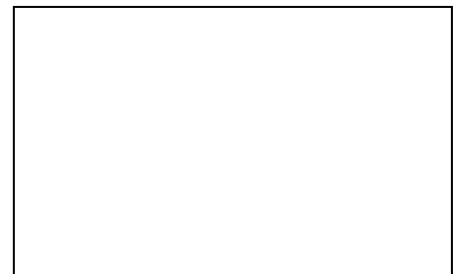
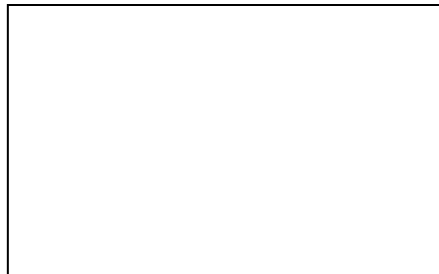
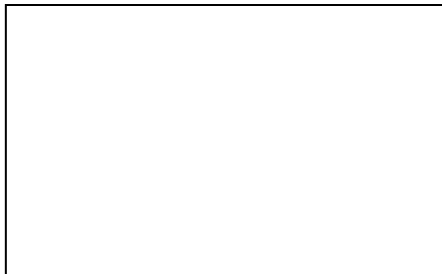
6. Plasmodium causes what serious disease in humans? _____
It is transmitted to humans by the _____. Plasmodium in Humans collect and multiply in the blood stream and in the _____.

7. Give some symptoms of malaria. _____

8. Bacteria are different than protists because they do NOT contain a _____
9. Do they have DNA? _____ Where is it? _____
10. Draw a simple diagram of a **bacterial cell** showing and labeling *cell wall*, *plasma membrane*, *plasmid*, *DNA* and a *ribosome*.



11. Draw and name the three main shapes of bacteria.



12. The normal human houses about _____ bacteria on the skin, about _____ in the mouth and about _____ in the gastrointestinal tract.

13. Where in our bodies are **Lactobacillus acidophilus** bacteria found? _____

What do they do? _____

14. Are most strains of E-coli harmful? _____. What about the strain called O157:H7? _____. What are some serious affects of O157:H7 E-coli in humans? _____

15. Where did O157:H5 contaminate the water supply in May 2000? _____

How many people became ill? _____ How many died? _____

16. What are 4 ways in which harmful e-coli can be transmitted to humans?

17. What was infected by O157:H5 E-coli in September 2006? _____

_____ What do they think caused this infection?

18. Name 9 common diseases in humans which are caused by bacteria. _____

19. What do antibiotics do? _____

20. What problem has resulted from over-use of antibiotics? _____

21. How many deaths occur in the US in a year due to infections of resistant bacteria picked up in hospitals? _____

22. Viruses must have a _____ cell in which to carry out their life sustaining functions.

23. Viruses cannot synthesize proteins because they do not have _____.

24. Where do viruses make the proteins they need? _____
Where do they get the materials (amino acids) for the proteins they need? _____

- They cannot generate or store energy on their own. They must get that from the _____ cell.
25. Viruses simply have a "coat" consisting of _____, some have a layer of _____ acids and they all have _____ or _____ in the center.
26. When a virus enters a host cell, the genetic material (DNA or RNA) directs the production of _____ viruses. The cell then _____ the viruses.
27. Name 12 common human diseases caused by viruses. _____

28. Do antibiotics kill viruses? _____
29. What did polio sometimes do to the muscles used by the respiratory system? _____
_____. How did polio victims breathe? _____
_____.
30. What stopped the spread of polio? _____
31. Hepatitis is caused by a _____. What organ does hepatitis affect mainly?
_____. Which form of hepatitis is most serious? _____

What are some ways in which hepatitis can be transmitted? _____

32. HIV stands for _____

33. What disease does HIV cause? _____

34. Mononucleosis is caused by the _____ virus.

35. What are 9 symptoms of mononucleosis? _____

36. When the H5N1 influenza virus is detected in domestic poultry, large numbers are deliberately killed. Why? _____

37. Have H5N1 viruses crossed the "species barrier" and infected humans? _____

38. Is West Nile virus harmful to everyone who gets it? _____. About 1 in _____ people infected with WNV will develop serious symptoms. These symptoms could include: _____

39. Summarize the make-up of protists, bacteria and viruses showing what they have and don't have:

Protists:

Bacteria:

Viruses:

40. Fill in the following table. (Use information from Power Point on Microorganisms)

Disease or Bacteria	How People can get Infected	Major Symptoms or Effects
Salmonella		
Botulism		
Anthrax		
Bubonic Plague		

41. Briefly outline the steps involved in gene-splicing (also called _____DNA)

42. List several important areas where gene-splicing has already or will have an impact.