

Microbes Worksheet

1. How many nanometers are in a length of one meter?

2. What advantageous evolutionary instinct do human have that separates us from other life forms?

3. What is 'miasma'?

4. What scientist challenged the 'miasma' theory about disease in the 1500's?

5. Which scientist is considered the first to visualize, or see, microbes? What year?

6. What was the significance of the work of Robert Koch?

7. Name two exceptions to Koch's first Rule:

a. _____

b. _____

8. What was the importance of 'Typhoid Mary'?

9. What medical tool do we use today to make a person immune to a bacterial or viral disease?

10. Which 1931 invention made it possible to visualize a virus?

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11. What types of organisms are considered 'microbes'?

- a. _____
- b. _____
- c. _____
- d. _____

12. Name four ways bacterial and viruses differ.

- a. _____
- b. _____
- c. _____
- d. _____

13. Think of four similarities between bacteria and viruses:

- a. _____
- b. _____
- c. _____
- d. _____

14. Name four ways bacteria and viruses spread:

- a. _____
- b. _____
- c. _____
- d. _____

15. True or False: All bacteria are harmful to humans.

16. Where do viruses reside?

17. What do viruses require in order to survive?

18. About what percent of bacteria cause infection?

_____ %

19. What was the first antibiotic used to fight bacterial infection?

20. Why is penicillin not very effective treating most infections today?

21. What problem is caused by the overuse of antibiotics?

22. What is the most effective method of preventing viral infection?

23. What are four impossible measures that would almost guarantee that you would not catch a viral or bacterial infection?

a. _____

b. _____

c. _____

d. _____

24. Name four serious viral infections spread by mosquitos.

a. _____

b. _____

c. _____

d. _____

25. Which microbe has probably killed more people than any other in the last 100 years?

26. Which two insects transmit many of the most virulent viruses?

a. _____

b. _____

27. Which animals most commonly carry the rabies virus?

a. _____

b. _____

c. _____

d. _____

e. _____

28. Which of the living things below are capable of spreading the rabies virus to humans? (circle your choices)

insects reptiles fish mammals amphibians

29. What are the two preventive treatments given to patients having been scratched or bitten by animals suspected of carrying rabies?

a. _____

b. _____

30. Why might it prove important NOT to breathe water into your nose when swimming in a public swimming pool or lake?

31. How does polio affect girls and boys differently?

- a. Girls: _____
- b. Boys: _____

32. Aside from organisms contaminating drinking water, what else can end up in water that can cause illness?

33. Name two bacteria that can cause food poisoning.

- a. _____
- b. _____

34. What are two diseases carried by ticks?

- a. _____
- b. _____

35. What are three bacteria that can infect humans when breathed in?

- a. _____
- b. _____
- c. _____

36. Match the infection-causing organism on the left with the manifestation of the infection on the right.

- | | |
|-------------------------|---|
| a. _____ Staphylococcus | 1. Red streak moves away from |
| infection focus | |
| b. _____ Streptococcus | 2. Abscess forms at the site of infection |

37. How long have bacterial and viruses existed on Earth?

_____ years

38. Today we have vaccines available to prevent some diseases caused by: (circle your answer)

a. Viruses

b. Bacteria

c. Viruses & Bacteria

39. True or False (circle): Humans could survive without viruses or bacteria.

40. Fill in the blanks: Humans, animals, plants, and microbes live in

_____ and _____ with each other.

_____ are the least dependent on the others for their survival.