

Science Review — Cells, Microorganisms, and Disease

Name: _____

Date: _____

Answer the following questions using complete sentences when possible.

1. Characteristics of Life

1. What are all living things made of?
 2. Why do living things need nutrients?
 3. Why do living things need energy?
 4. Why must living things produce and remove waste?
 5. Give one example of a living thing responding to a stimulus.
 6. What does it mean when living things grow?
 7. Why is reproduction important for living things?
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2. The Three Aspects of Cell Theory

8. What does cell theory say about all living things?
9. What does cell theory say about the cell itself?
10. According to cell theory, where do new cells come from?

11. Why is it important that new cells come from existing cells?

3. Types of Cells

12. How are cells classified into two main types?

13. What is a nucleus?

14. Which type of cell does not have a nucleus?

15. What type of cells do bacteria have?

16. Are plant and animal cells prokaryotic or eukaryotic?

4. Parts of the Cell

17. What is the function of the cell membrane?

18. What does the nucleus do?

19. What is the cytoplasm?

20. What is the function of mitochondria?

21. What do ribosomes make?

22. What is the function of the cell wall?

23. What happens in chloroplasts?

24. What is stored in vacuoles?

5. Photosynthesis and Cellular Respiration

25. What is photosynthesis?

26. What three things are needed for photosynthesis?

27. What two things are produced during photosynthesis?

28. What is cellular respiration?

29. Where in the cell does cellular respiration occur?

30. How are photosynthesis and cellular respiration connected?

6. The Relationship of Microorganisms with Living Things

31. What is a microorganism (microbe)?

32. Why can microbes only be seen with a microscope?

33. Give one example of how microbes help living things.

34. Give one example of how microbes can harm living things.

35. What is a pathogen?

36. How does the immune system help protect us from infection?

7. Epidemics, Outbreaks, and Pandemics

37. What is an outbreak?

38. What is an epidemic?

39. What is a pandemic?

40. How are outbreaks, epidemics, and pandemics similar?

41. How are they different?

42. Name one way disease outbreaks can affect populations.