

# Cell Structure & Function Review



1. The first Person to describe microscopic organisms and living cells was \_\_\_\_\_.
2. Short, hair-like organelles that can move and may cover a unicellular organism are called \_\_\_\_\_.
3. Some Ribosomes are free in the cytoplasm, while others line the membrane of the \_\_\_\_\_.
4. Everything between the cell membrane and the nucleus is the cell's \_\_\_\_\_.
5. All cells, from all organisms, are surrounded by a \_\_\_\_\_.
6. The organelle that stores DNA \_\_\_\_\_.
7. The organelle that processes and packages substances produced by the cell \_\_\_\_\_.
8. The \_\_\_\_\_ is the control center of the cell.
9. The DNA in the form of a long strand is called \_\_\_\_\_.
10. Cytoskeleton consists of two main components: \_\_\_\_\_ and \_\_\_\_\_.
11. The cell membrane functions like a \_\_\_\_\_, controlling what \_\_\_\_\_ and \_\_\_\_\_ the cell.
12. A lipid is a simple form of \_\_\_\_\_.
13. There are many \_\_\_\_\_ embedded in cell membranes; they help to move material into and out of the cell quickly.

14. The nucleus is surrounded by a double layer membrane called the \_\_\_\_\_.
15. During cell division, \_\_\_\_\_ strands coil and condense into thick structures called \_\_\_\_\_.
16. The nucleolus makes \_\_\_\_\_. Which in turn build proteins.
17. Cell membranes are made mostly of \_\_\_\_\_.
18. The \_\_\_\_\_ is the smallest unit that can carry out all of the processes of life. The basic unit of life.
19. The discovery of cells is linked most directly the development of the \_\_\_\_\_.
20. Organisms whose cells never contain a membrane bound nucleus are called \_\_\_\_\_.
21. The number of chromosomes in a human \_\_\_\_\_.
22. When a cell prepares to divide the \_\_\_\_\_ disappears.
23. Organisms whose cells always or usually contain a nucleus or nuclei are called \_\_\_\_\_.
24. \_\_\_\_\_ are structures that carry out specific functions in the cell.
25. Unicellular organisms such as bacteria and their relatives are \_\_\_\_\_.
26. Where are debris and waste broken down in a cell?  
\_\_\_\_\_.
27. A cell synthesizes protein by using organelles called \_\_\_\_\_.
28. What are the membrane-bound sacs that package and ship cell products?  
\_\_\_\_\_.
29. Unlike animal cells, plant cells have \_\_\_\_\_.

30. A Chloroplast contains \_\_\_\_\_.

31. What are Flagella?

\_\_\_\_\_.

32. In animal cells, the Cytoskeleton maintains structure and helps the cell

\_\_\_\_\_.

33. The organelle that digests molecules, old organelles, and foreign substances in the cell \_\_\_\_\_.

34. A pigment that absorbs energy in sunlight

\_\_\_\_\_.

35. The organelle that prepares proteins for export is \_\_\_\_\_

\_\_\_\_\_.

36. What type of cells would you expect to find large numbers of mitochondria?

\_\_\_\_\_.

37. The "Powerhouse" of the cell \_\_\_\_\_.

38. The first cells on Earth were likely \_\_\_\_\_.

39. Microfilaments and microtubules function in the \_\_\_\_\_

40. The organelle that produces energy in the form of ATP

\_\_\_\_\_.

41. Distinguish between the structure of rough ER and that of smooth ER.

42. Explain how ribosomes, endoplasmic reticulum, Golgi apparatus function together in protein synthesis.

43. Why is the cell membrane said to be selectively permeable?

44. *If a cell has a high energy requirement, would you expect it to have many or few mitochondria? Explain your answer.*

45. *Describe TWO differences between prokaryotic cells and eukaryotic cells.*

46. *How can you determine whether a unicellular organism is a prokaryote or a eukaryote?*

47. *What are the THREE Parts of the Cell Theory?*

48. *Describe three differences between plant and animal cells.*

49. *What is the difference between chromatin and chromosomes?*

50. **English scientists who first saw "little boxes" in CORK that he named cells**

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