

Unit 2: Cell Structure and Function**PowerPoint Questions****DISCOVERY OF THE CELL**

1. Who invented the term cell?
2. What did Virchow reason?
3. One theory proposed that the first life on earth were_____

CELLS

1. What is the smallest basic unit of life?
2. What is needed to see most cells?
3. _____ are made of one cell, while _____ are composed of more than one cell.
4. What are prokaryotic cells?
5. Give an example of a prokaryote.
6. What are eukaryotes?
7. Are plant and animal cells prokaryotes or eukaryotes?
8. Where is DNA found inside prokaryotic cells?
9. What 2 structures surround prokaryotic cells?
10. What organelle, not surrounded by a membrane, is found in prokaryotes & eukarotes?
11. Name the 3 basic cell structures in eukaryotes.
 - a.
 - b.
 - c.
12. _____ are small structures in the cytoplasm that perform specific functions.
13. Give the function of these organelles:
 - a. endoplasmic reticulum
 - b. Golgi bodies
 - c. Nucleolus

e. Ribosomes

14. Describe the structure of Golgi bodies.

15. Golgi receive and modify _____ made by the ER.

16. What structures pinch off the ends of the "shipping" side of Golgi to carry cell products to their destination?

17. Lysosomes contain _____ enzymes to break down _____ and worn out _____ parts.

18. Explain how lysosomes are programmed for cell death.

19. Where is the nucleolus located?

20. Cells may have _____ to _____ nucleoli.

21. Nucleoli make _____ that make _____ for the cell.

22. How does smooth ER differ from rough ER?

23. Proteins used in the cell are made by _____ Er, while proteins to be exported are made by _____ ER.

24. What organelle serves as the powerhouse of the cell?

25. What important process takes place in the mitochondria?

26. Which type of cells would have more mitochondria & why?

27. _____ like glucose are burned in the mitochondria to release cellular energy known as _____.

28. What surrounds the outside of all cells?

29. In plant cells, a cell _____ surrounds the cell membrane for extra support.

30. What 2 things make up all cell membranes?

31. Cell membranes only allow certain materials into & out of the cell so they are said to be _____.

32. The cell _____ is a living layer around cells, while the cell _____ in plants is nonliving.

33. Jelly-like material inside the cell membrane is called _____ and is where most _____ of the cell take place.
34. Organelles are found inside the cell's _____.
35. The _____ controls the activities of the cell and contains the cell's _____.
36. The _____ surrounds the nucleus.
37. Chromosomes inside the nucleus contain _____ that control the cell's characteristics.
38. Plant cell walls are made of _____ fibers and are freely _____.
39. Cell walls resist the loss of _____ from a cell and give _____ & support to the cell.
40. What large organelle takes up most of the space in a plant cell?
41. What is the membrane called that surrounds the central vacuole in plants?
42. Cell _____ is found inside the central vacuole & may contain _____, proteins, _____, wastes, and _____.
43. Give 3 examples of different kinds of plant cells.
44. Name 2 structures found in plant, but NOT animal cells.
45. Animal cells store their carbohydrate energy as _____ in their cytoplasm.
46. What paired organelle involved with cell division is found in animal but NOT plant cells?
47. Name 6 types of animal cells.
48. List 3 similarities between plant and animal cells.
- a.
 - b.
 - c.

- 49. How do plant and animal cells compare in size?
- 50. How do plant and animal cells compare in shape to each other?
- 51. Do animal cells have cell walls?
- 52. Animal cells store food energy as _____, while plants store food energy as _____.
- 53. Where is the nucleus in:
 - a. animal cells?
 - b. plant cells?
- 54. Do animal cells have vacuoles like plant cells? Explain.

MICROSCOPES

- 55. Light microscopes are also called _____ microscopes.
- 56. Light microscopes can magnify objects up to _____ times.
- 57. Label the parts of the microscope:

