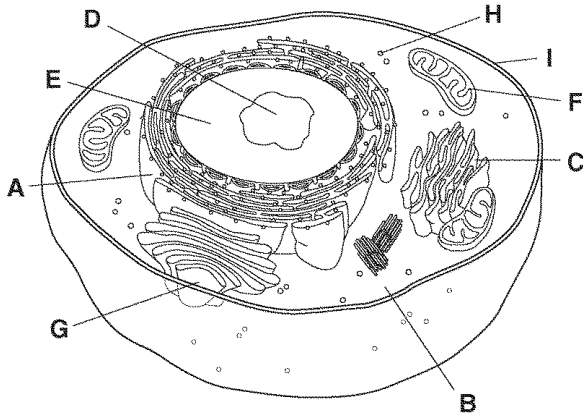


CELL STRUCTURE STUDY GUIDE

1. Identify the cell structures.



2. Describe two ways you can tell this cell is NOT a plant cell.
3. Describe two ways you can tell this cell is NOT a bacterial cell.
4. What are cells called that have no nucleus and no organelles?
5. What are cells called that have a nucleus and organelles?
6. What kinds of cells are eukaryotes?
7. What kinds of cells are prokaryotes?
8. A structure surrounded by a membrane that performs a specialized function within a cell is known as?
9. List 3 ways in which a plant cell differs from an animal cell. Be sure to indicate what belongs to the plant and what belongs to the animal cell.
10. Describe the differences between the structure and functions of the rough and the smooth ER.
11. What organelle is responsible for modifying and packaging proteins for distribution?
12. What organelle is responsible for storing water inside a plant cell?
13. List the organelles involved in the process of protein production.
14. What is the gel-like material inside the cell and inside organelles called?
15. Where does photosynthesis occur in a cell?
16. What is the dark spot in the nucleus called?

1. _____
A: _____
B: _____
C: _____
D: _____
E: _____
F: _____
G: _____
H: _____
I: _____
2. _____

3. _____

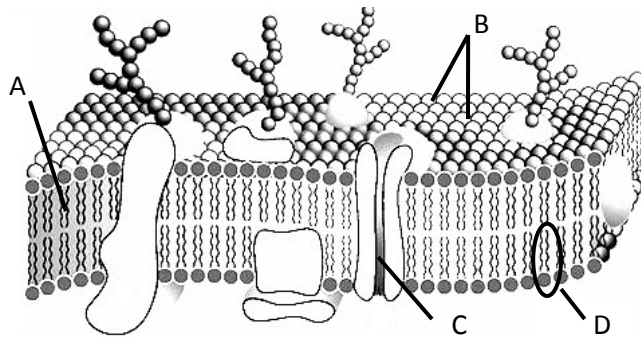
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

10. _____

11. _____
12. _____
13. _____

14. _____
15. _____
16. _____

17. If a cell is very active, like muscle cells and needs more energy, what type of organelle will it need more of?
18. What is the purpose of DNA inside the nucleus?
19. What structure surrounds the DNA and controls what enters and leaves the nucleus?
20. What is the job of the nucleolus?
21. How do materials get to & from the Golgi?
22. Centrioles are found ONLY in which kind of cells?
23. What is the function of centrioles?
24. Where are ribosomes found?
25. What is the function of ribosomes?
26. What do lysosomes do?
27. Which organelle manufactures ATP in the cell?
28. What is the only kind of cells that have chloroplasts?
29. Where is the cell wall located?
30. What kinds of cells have cell walls?
31. What is the function of cell walls?
32. Which structure is most directly responsible for maintaining homeostasis (balance) in all cells?
33. Identify the parts of the cell membrane.



34. What is the function of the cell membrane?
35. Define homeostasis and give an example.
36. Why is the cell membrane said to be "semi-permeable"?
37. Define "concentration gradient".

17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. _____
31. _____
32. _____
33. _____
 A: _____
 B: _____
 C: _____
 D: _____
34. _____

35. _____

36. _____

37. _____

38. What kind of transport DOES NOT require energy?
39. During diffusion molecules tend to move from ____ to ____.
40. When the concentration of a solute is the same throughout a system, the system has reached?
41. Which kinds of transport are passive?
42. Facilitated diffusion with aquaporins is also called?
43. In a solution, the _____ such as sugar, dissolves into the _____, like water.
44. _____ tonic means there is a GREATER concentration of solute molecules OUTSIDE the cell than inside. Draw a picture to the right and label the movement of water.
45. _____ tonic means there is a LOWER concentration of solute molecules OUTSIDE the cell than inside. Draw a picture to the right and label the movement of water.
46. _____ tonic means there is the SAME concentration of solute molecules outside the cell as inside. Draw a picture to the right and label the movement of water.
47. Active transport requires?
48. Which kinds of transport are active?
(Hint: There are 3!)
49. Diagram exocytosis and endocytosis to the right and label which is which.
50. Small membrane sacs used for transport of large substances are called?

38. _____
39. _____

40. _____
41. _____

42. _____
43. _____

- 44.
- 45.
- 46.
47. _____
48. _____

- 49.
50. _____

TOUR THROUGH A GIANT PLANT CELL

- As you tour our giant plant cell, **take notes** in the space below on the **structures** that you see and the **function** of each part.
- You should also write down **at least 3** of the **best test questions** and **answers** that you see.



Plant Cell Structure Notes:

3 Best Test Questions & Answers: