



## Cell Organelles and Their Functions

Name \_\_\_\_\_

Date \_\_\_\_\_

**Below is a list of the organelles found in plant and animal cells. Match the organelle with the function it carries out inside a cell. Many of the cell organelles will be used more than once.**

- |                    |                      |                                  |
|--------------------|----------------------|----------------------------------|
| 1) Cell Membrane   | 8) Cytoplasm         | 15) Nucleolus                    |
| 2) Cell Wall       | 9) Cytoskeleton      | 16) Nucleoplasm                  |
| 3) Central Vacuole | 10) Golgi apparatus  | 17) Nucleus                      |
| 4) Centriole       | 11) Leukoplast       | 18) Ribosome                     |
| 5) Chloroplast     | 12) Lysosome         | 19) Rough endoplasmic reticulum  |
| 6) Chromoplast     | 13) Mitochondria     | 20) Smooth endoplasmic reticulum |
| 7) Chromosome      | 14) Nuclear membrane | 21) Vacuole                      |

- 17 1. This is the control center of the cell.
- 7 2. This is made of DNA and is the storage area for all genetic information.
- 18 3. This is the site of protein synthesis in a cell.
- 14 4. This porous structure surrounds the nucleus, keeping it intact.
- 19, 20 5. This internal membrane system is so extensive that it accounts for more than half the total membrane in a cell.
- 10 6. When newly formed proteins leave the rough endoplasmic reticulum, they are transported to this organelle, where the proteins are sorted and packaged.
- 15 7. This part of the cell manufactures the ribosomal subunits.
- 12 8. This part of the cell is surrounded by a very thick outer membrane to protect the rest of the cell from its strong enzymes.
- 8 9. The portion of the cell that exists outside of the nucleus.
- 1 10. The part of the cell that controls what enters and leaves the cell.
- 17 11. The part of the cell where chromosomes would be found.
- 19, 20 12. This membrane connects the nuclear membrane to the cell membrane.
- 12 13. This part of the cell contains strong digestive enzymes to break down proteins, carbohydrates and lipids into small molecules that can be used by the rest of the cell.
- 18 14. These are the most numerous of the cell's organelles.
- 13 15. This serves as the "powerhouse" of the cell.
- 20 16. The place where lipids are manufactured.
- 7 17. This part contains the instructions for making proteins and other important molecules.
- 9 18. This organelle consists of two types of fibers called microfilaments and microtubules.
- 4, 12 19. Choose 2 of the organelles from the list above that would never be found in a plant cell.
- 5, 13, 17 20. These three organelles all are surrounded by a double membrane.

- 16 21. This is the semi-fluid portion found inside the nucleus.
- 19 22. Newly made proteins are inserted into spaces of this organelle where they are modified and shaped into functioning proteins.
- 10 23. This organelle puts the “finishing touches” on proteins before they are shipped off to their final destinations.
- 2,3,5,6,11 24. Choose 5 organelles from the list above that would never be found in an animal cell.
- 3 25. This large structure in a plant cell is filled with water creating turgor pressure.
- 5 26. This is the site of photosynthesis in a plant cell.
- 18 27. These may be found free-floating in the cytoplasm or attached to the endoplasmic reticulum.
- 13 28. This part of the cell contains internal folds of membrane called cristae.
- 9 29. This part of the cell is involved with cell movement, cell shape and the separation of chromosomes during cell division.
- 5 30. This organelle has the unique ability to absorb the energy from the sun and convert it into a molecule of glucose.
- 6 31. This organelle contains pigments of all colors except green.
- 11 32. This organelle serves as a storage area for starch in a plant cell.
- 20 33. The type of endoplasmic reticulum to which no ribosomes are attached.
- 21 34. This serves as a storage area inside an animal cell.
- 2 35. This organelle is composed of tough, stringy cellulose fibers.
- 19 36. The type of endoplasmic reticulum to which ribosomes are attached.
- 10 37. This organelle is often found near the cell membrane. It consists of a stack of flattened sacs.
- 12 38. This organelle helps to “clean up” or destroy any debris that might build up inside the cell.
- 5 39. This organelle has an internal membrane system called thylakoids.
- 13 40. This is the site of cellular respiration.
- 9 41. This is an internal framework and support system to give shape and organization to a cell.
- 2,3 42. What two structures give the plant the strength and support needed to stand upright?
- 5 43. This part contains the green pigment chlorophyll.
- 6 44. This organelle gives fruits and flowers their color.
- 1, 7-10, 13-20 45. Which of the above would be found in both plant cells and in animal cells?