Animal Cell
Structure and functions
Functions of cell structure

**Centrioles** - Centrioles are self-replicating organelles made up of nine bundles of microtubules and are found only in animal cells.

**Endoplasmic Reticulum** - The endoplasmic reticulum is a network of sacs that manufactures, processes, and transports chemical compounds for use inside and outside of the cell. It is connected to the double-layered nuclear envelope, providing a connection between the nucleus and the cytoplasm.

**Golgi Apparatus** - The Golgi apparatus is the distribution and shipping department for the cell's chemical products. It modifies proteins and fats built in the endoplasmic reticulum and prepares them for export to the outside of the cell.

**Lysosomes** - The main function of these microbodies is digestion. Lysosomes break down cellular waste products and debris from outside the cell into simple compounds, which are transferred to the cytoplasm as new cell-building materials.
**Mitochondria** - Mitochondria are oblong shaped organelles that are found in the cytoplasm of every eukaryotic cell. In the animal cell, they are the main power generators, converting oxygen and nutrients into energy.

**Nucleus** - The nucleus is a highly specialized organelle that serves as the information and administrative center of the cell.

**Plasma Membrane** - All living cells have a plasma membrane that encloses their contents. These membranes also regulate the passage of molecules in and out of the cells.

**Ribosomes** - non-membraneous, spherical bodies composed of RNA (ribonucleic acid) and protein enzymes. It is the site of protein synthesis.
Cell crossword
Cell crossword

Across
1. Gives plant cells firm regular shape
2. This is combined in a special way to form glucose
3. Sac like membrane found near nucleus that pinch off at end
4. Site of protein manufacture
5. Keeps cell contents separate from external environment
6. Carbohydrate that makes up cell walls.
7. Spaces between cells are called ____________ cellular spaces.
8. Tubular network attached to the nuclear membrane for cell transport.
9. That which is outside the cell.
10. Jel-like fluid which houses the cell organelles.
11. Substance produced by ribosomes.
12. Power-house of the cell.

Down
13. Undigested materials removed from cell membrane
14. Large fluid filled space found in plant cells for storage and digestion.
15. Specialized structure in cell with particular function.
16. Thin rod-like structure composed of DNA and protein and found in nucleus.
17. Structures responsible for cell transport.
18. ER without ribosomes looks ____________ under the microscope.
19. ER with ribosomes looks ____________ under the microscope.
20. Nucleic acid found in ribosomes.
21. Abbreviation for rough endoplasmic reticulum.
21. Unique to animal cell which plays a role in cell division.
23. Nucleic acid found in chromosomes.
24. Organelle which contains instructions for cell function.