

Cellular Structures and Functions – Below, you will find 2 tables with the descriptions of structures and the functions. They are in no specific order, so it is your job to match the descriptions with the organelles in Table 3, then match the functions with the descriptions.

| TABLE 1 – DESCRIPTION OF STRUCTURES |
|--|
| Contains DNA, the blueprints for making necessary proteins |
| Organelles that contain digestive enzymes |
| Round, non-membrane bound organelle, found in prokaryotes and eukaryotes |
| Clear, gelatinous fluid inside the cell |
| Phospholipid bilayer that surrounds the cell |
| Membrane-bound spaces; sacs surrounded by a membrane |
| Series of highly folded membranes suspended in the cytoplasm. Attached to its outside are ribosomes. |
| Flattened system of tubular membranes |
| Contained within the nucleus |
| Firm structure in plans, located outside the plasma membrane, make of cellulose |
| Series of highly folded membranes suspended in the cytoplasm. Nothing attached to its outside. |
| Small, cylindrical structures that contain microtubules |
| Contain a highly folded inner membrane, an outer membrane and matrix |
| Contain a plant cell's thylakoids, stroma and grana, and chlorophyll. |

| TABLE 2 – ORGANELLE FUNCTIONS |
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| Controls all of the cell functions |
| Trap energy from sunlight in leaves; site of photosynthesis |
| Digests excess or worn out organelles |
| Makes proteins according to the instructions given by DNA |
| Selects which molecules enter the cell |
| Produces and stores lipids |
| Sorts and packages proteins for transport out of the cell |
| Makes ribosomes |
| Site of cellular respiration – to convert glucose into usable energy |
| Stores food, water and sometimes waste materials |
| Provides a transport system between the nucleus and cytoplasm |
| Suspends the cell's organelles and is the site of many biochemical reactions |
| Facilitates cell division |
| Protects and gives the plant cells its shape |

TABLE 3. CELLULAR STRUCTURE AND FUNCTION

| <i>Cell Structure</i> | <i>Description of the cell structure</i> | <i>Function of Cell Structure</i> |
|------------------------------|--|-----------------------------------|
| Plasma Membrane | | |
| Nucleus | | |
| Nucleolus | | |
| Lysosome | | |
| Ribosome | | |
| Rough Endoplasmic Reticulum | | |
| Smooth Endoplasmic Reticulum | | |
| Golgi Apparatus | | |
| Centriole | | |
| Mitochondria | | |
| Chloroplast | | |
| Vacuole | | |
| Cell Wall | | |
| Cytoplasm | | |