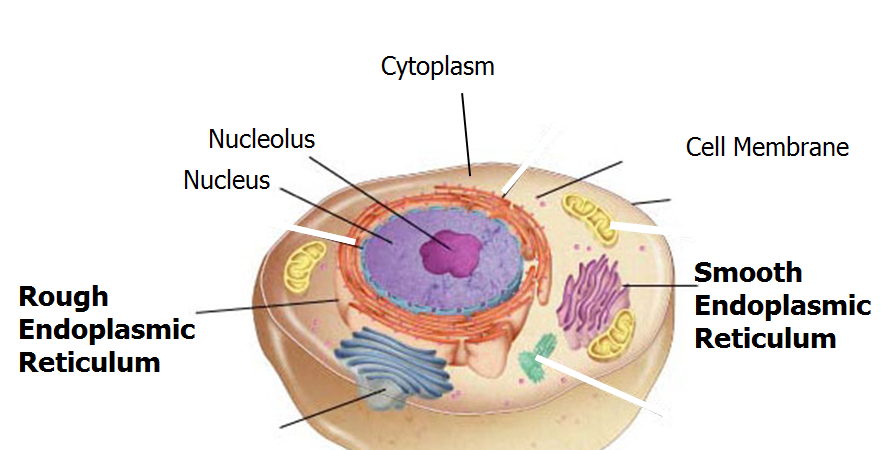
**Organelles**

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| human_skeletonThe cytoskeleton works like our skeleton. |  | **ORGANELLES INVOLVED IN CELL SUPPORT** | | |  | Contains the \_\_\_\_\_\_\_\_\_\_\_in eukaryotic cells  Composed mostly of \_\_\_\_\_\_\_\_\_\_.    Many chemical reactions occur in the cytoplasm where water acts as a  \_\_\_\_\_\_\_\_\_\_\_\_. | |
| The cytoskeleton helps the cell maintain its \_\_\_\_\_\_\_\_and moves \_\_\_\_\_\_\_\_\_\_\_\_around.  ALS, or Lou Gehrig’s disease occurs when there are \_\_\_\_\_\_\_\_\_\_\_\_  cytoskeleton in the nerve cells. |  | **Eukaryotic cells have a\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, a framework of \_\_\_\_\_\_\_\_\_\_\_\_\_that is constantly changing to meet the needs of the cell.**      **CYTO- MEANS**  “CELL” |  |  |  |
|  |  | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a jelly-like substance that also helps the cell \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** |  |
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| **ORGANELLES INVOLVED IN THE CREATION OF PROTEINS** | | | | | |
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| **\_\_\_\_\_\_\_\_\_\_\_\_**  **The largest organelle in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **cell**. |  | **\_\_\_\_\_\_\_\_\_\_\_\_ link \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ together to make \_\_\_\_\_\_\_\_\_\_.** |  | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (ER)**  **is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **of thin, folded**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** | | |  | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ function is to \_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_ proteins received from the ER**  **for \_\_\_\_\_\_\_\_\_\_\_or  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **out of the cell.** |
| Contains the cell’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  information  (\_\_\_\_\_\_\_\_\_\_) |  | Some ribosomes are \_\_\_\_\_\_\_\_\_\_\_\_  to the ER. |  | Creases and folds allow the ER to \_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_into the cell.  There are 2 kinds of ER: | | |  | Closely layered stacks of \_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  **PROTEIN PRODUCTION IN THE CELL**  1. Ribosomes are made in the NUCLEOLUS.  2. Ribosomes leave the nucleolus via the nuclear pores  3. Amino acids are assembled by RIBOSOMES.  4. Protein assembly is completed in the ROUGH ENDOPLASMIC RETICULUM.  5. Proteins are carried in vesicles to the GOLGI to be modified or transported throughout the cell. |
| Surrounded by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (also called nuclear membrane) |  | Some ribosomes are suspended in the \_\_\_\_\_\_\_\_\_\_\_\_. |  | Rough ER  Rough ER is where proteins are\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_within the cell.  Rough ER is studded with \_\_\_\_\_\_\_\_\_\_\_\_\_\_. |  | Smooth ER  Smooth ER does not have \_\_\_\_\_\_\_\_\_\_\_\_\_.  It is the site where \_\_\_\_\_\_\_\_\_\_\_\_ are made. |  |
| The nuclear envelope is pierced with holes called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_that allow \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to pass in and out of the nucleus. |  | Ribosomes are crucial for the synthesis of PROTEINS |  |  |  |
| The nucleus contains the \_\_\_\_\_\_\_\_\_\_\_\_\_\_- a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ where organelles called \_\_\_\_\_\_\_\_\_\_\_\_\_\_are made. |  |  |  | Proteins are made on \_\_\_\_\_\_\_\_\_\_and inserted into Rough ER to be \_\_\_\_\_\_\_\_\_\_and  \_\_\_\_\_\_\_\_\_\_\_\_\_\_to another organelle. |  |  |  |

A LOOK AT THE ORGANELLES WE HAVE DISCUSSED

SO FAR-THEY ARE ALL INVOLVED IN MAKING PROTEINS.

**OTHER ORGANELLES**

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| **The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are bean-shaped organelles that supply \_\_\_\_\_\_\_\_\_\_\_ to the cell**  Surrounded by a \_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  Folded inner membrane \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ for more chemical  Reactions.  It is within these inner folds that chemical reactions occur that converts \_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_into \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  The folds inside the mitochondria are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  Nickname is the  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_  The chemical reaction is called  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |  | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_are small membrane-bound sacs that keep \_\_\_\_\_\_\_\_\_\_\_\_\_\_from various chemical reactions separated from the rest of the cell.**  They also \_\_\_\_\_\_\_\_\_\_these materials from place to place within the cell.  Vesicles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  and are formed and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  by the cell as needed. |  | **A \_\_\_\_\_\_\_\_\_\_\_is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_used for the \_\_\_\_\_\_\_\_\_\_ of materials needed by the cell**.  The vacuole stores materials such as   * \_\_\_\_\_\_\_\_\_ * Food molecules * Ions * \_\_\_\_\_\_\_\_\_ |  | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are membrane bound sacs  that contain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ called \_\_\_\_\_\_\_\_\_\_\_\_\_**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.** |
|  |  |  | Lysosomes defend a cell from invading \_\_\_\_\_\_\_\_\_\_\_\_\_\_.  They break down \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  or worn-out cell parts.  Contain digestive enzymes. |
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|  |  | LOOK FOR CENTRAL VACUOLE IN PLANT  CELLS |  | Programmed cell death is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  Lysosomes  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  unwanted cells |
|  |  |  |  |  | People with Tay Sach’s disease lack a \_\_\_\_\_\_\_\_\_dissolving enzyme in their vesicles.  Causes lipids to accumulate in the\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
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