

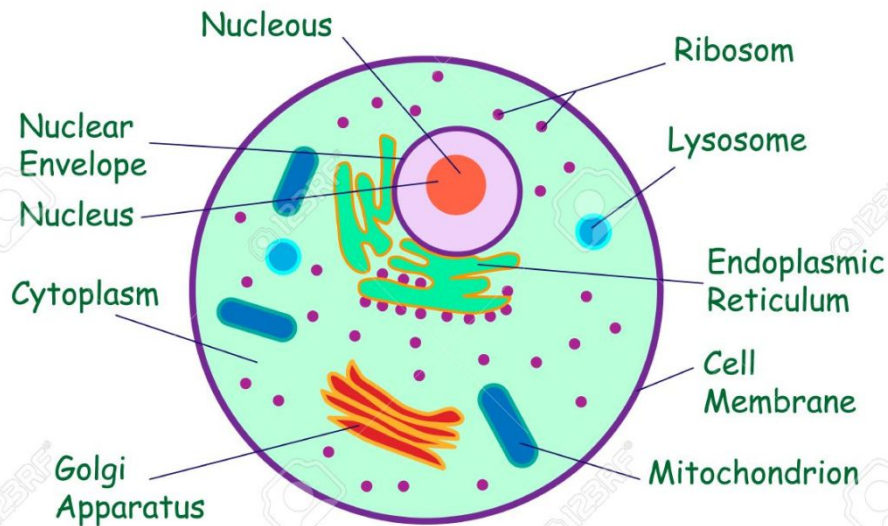
# Cell organization

# Structure of animal and plant cell

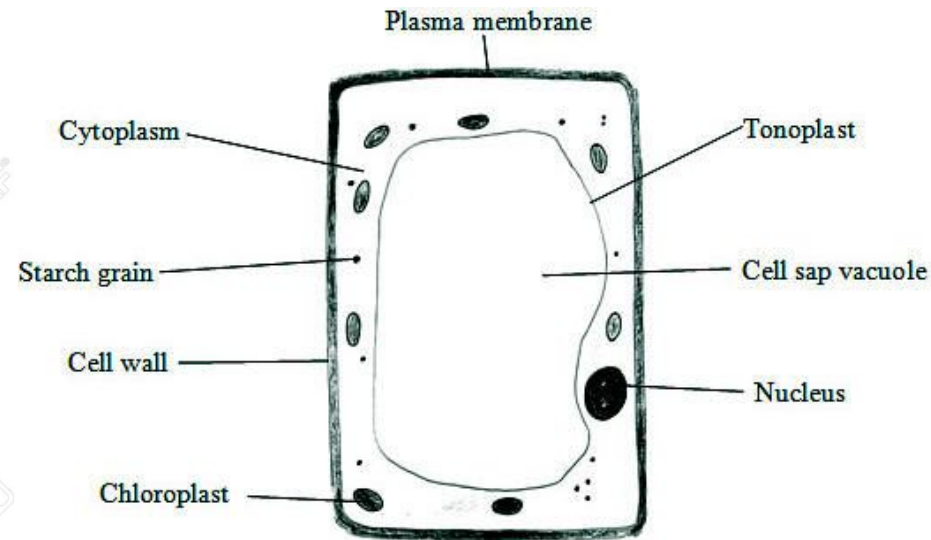
- Animal and plant cell are similar that they have same structures such as nucleus and cytoplasm. However, there are a few differences between them.
- *Cell structure* cannot be seen with the naked eye. We have to see the light microscope to magnify them. Structures in the cell can be seen under the light microscope.

# ANIMAL CELL

## Animal Cell



# PLANT CELL

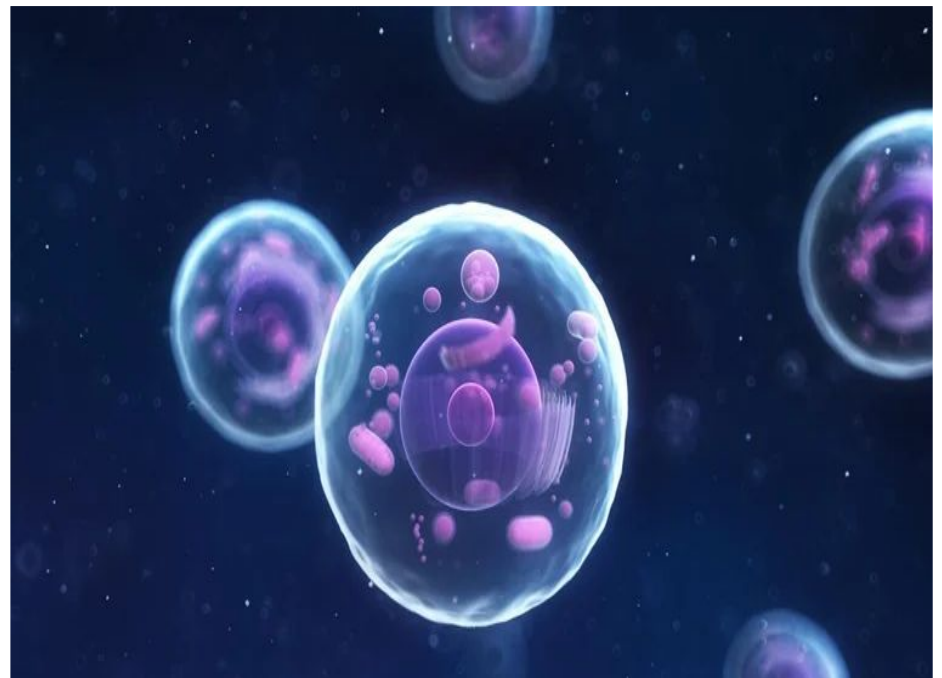


- **Light microscope** - an instrument that allows to see magnified objects or images

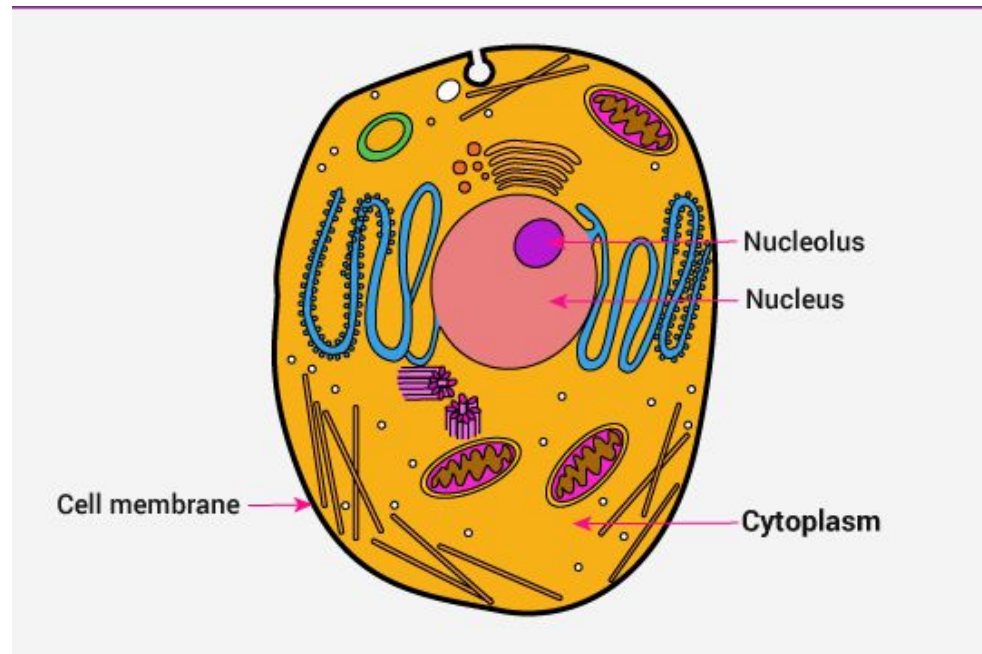


Abbildung 1/1/1/1

- **Nucleus**-the central part of most cells that contain genetic material and is enclosed in a membrane



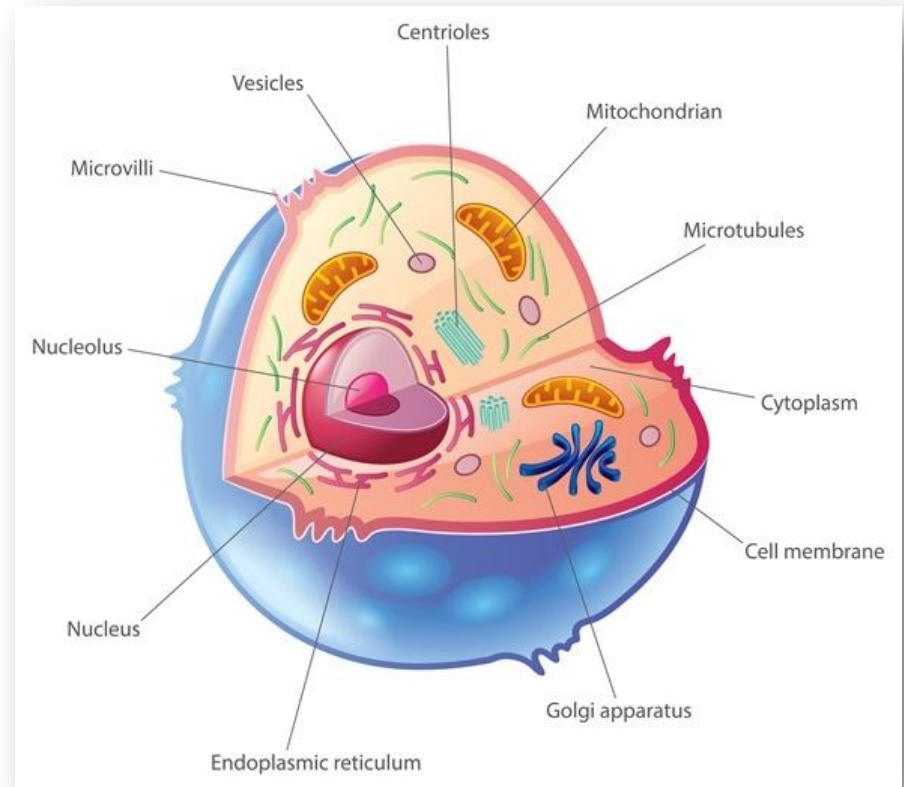
- **Cytoplasm**-the substance inside a cell that surrounds the cell's nucleus



- ❑ The **nucleus** is controlling all cell process. It contains **DNA**, which stores genetic information of plants and animals.
- ❑ **Cytoplasm** is a jelly-like structure inside of the cell. It surrounds and holds organelles.
- ❑ **Organelles** are little organs of the cell.
- ❑ They are doing different activities inside it. For example:
  - **Vacuole** stores water and minerals. Plants have one large vacuole, while it is absent in multicellular animals.
  - Only some **unicellular animals** have food and contractile vacuoles.
  - **Food vacuole** stores food while contractile vacuole remove excess water from the cell



• **Organelle**-the  
part of the cell  
which has its  
own function





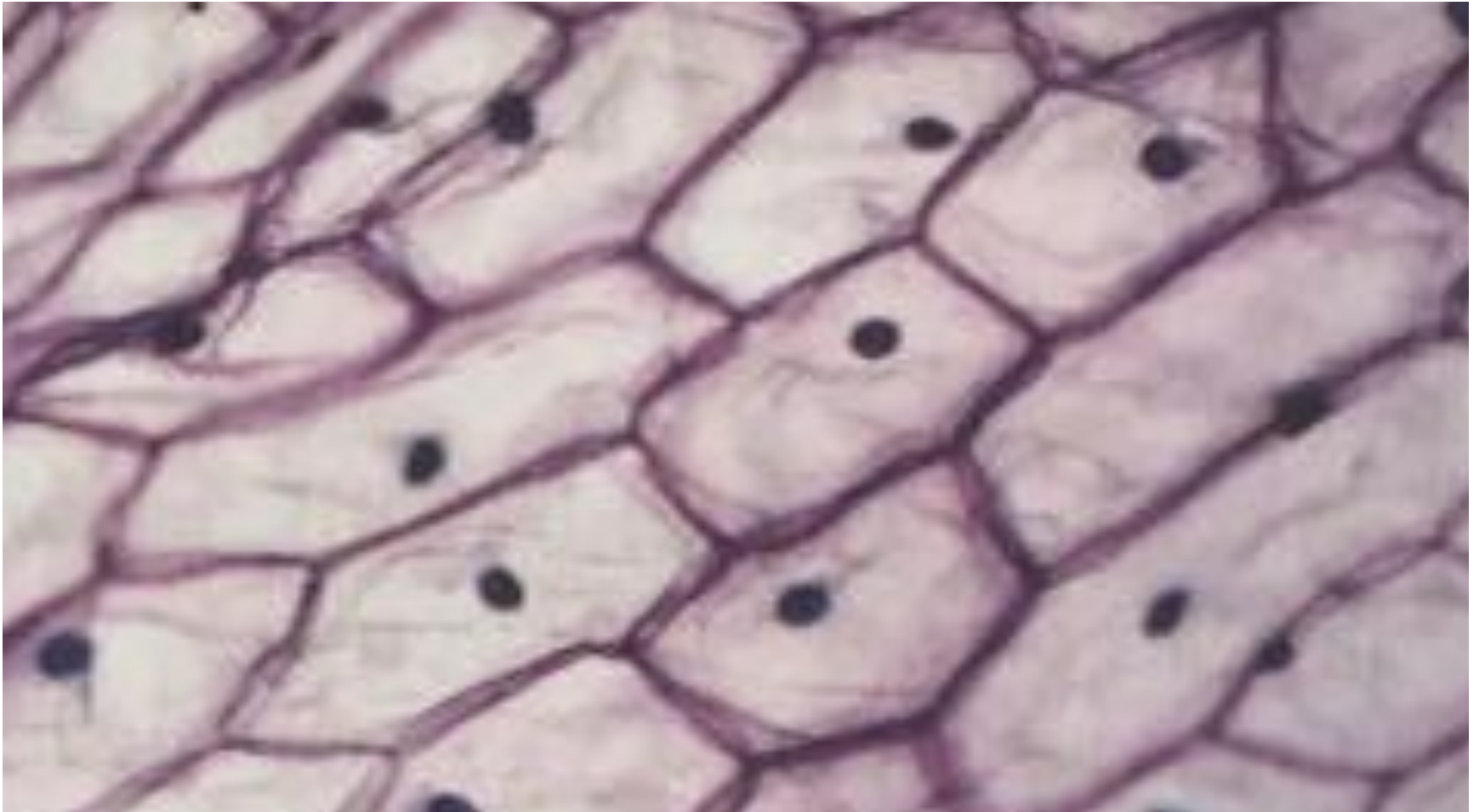
# Another different between plants and animals are **PLASTIDS**

- i. Plastids are found only in plant cells.
- ii. Their function is to make food by using sunlight.
- iii. Plastids give color to the plants.

# There are 3 main types of plastids:

- ❖ **Chloroplasts**-give to plants **green** color
- ❖ **Leucoplasts**-colorless, store starch
- ❖ **Chromoplasts**-give to plants **red, yellow, orange** colors.

**Onion cells** under the light microscope

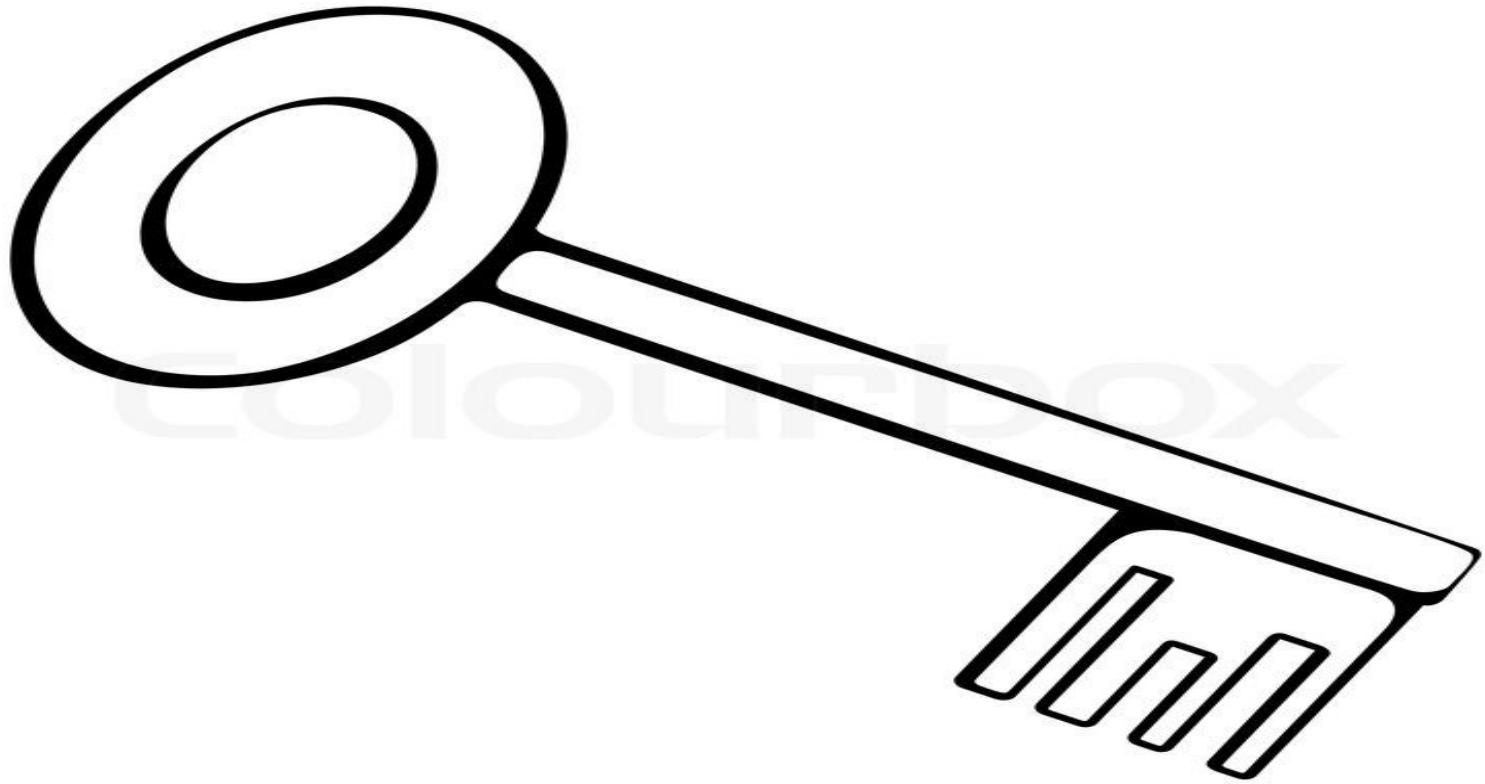


# Activity

- Work individually to fill a table below. Which organelle is present in which type of the cell

Name of Organelle	Plant Cell	Animal Cell	Both
Cell Membrane			
Cell Wall			
Chloroplast			
Cytoplasm			
Vacuoles			

# KEY TERMS



# TERMINOLOGY

- 1) **Cell membrane**-жасуша мембранасы, клеточная мембрана
- 2) **Cell wall**-жасуша қабырасы, клеточная стенка
- 3) **Contractile vacuole**-жиырылғыш вакуоль, сократительный вакуоль
- 4) **Enclosed**-қоршалған, закрытый
- 5) **Flexible**-иілгіш, гибкий
- 1) **Light microscope**-жарық ұлғайтқышы, световой микроскоп
- 2) **Magnify**-ұлғайту, увеличить
- 3) **Rectangular**-тікбұрышты, прямоугольный
- 4) **Rigid**-қатты, тығыз, жесткий
- 5) **Starch**-крахмал
- 6) **Store**-сақтау, хранить

Thank you for  
your attention!