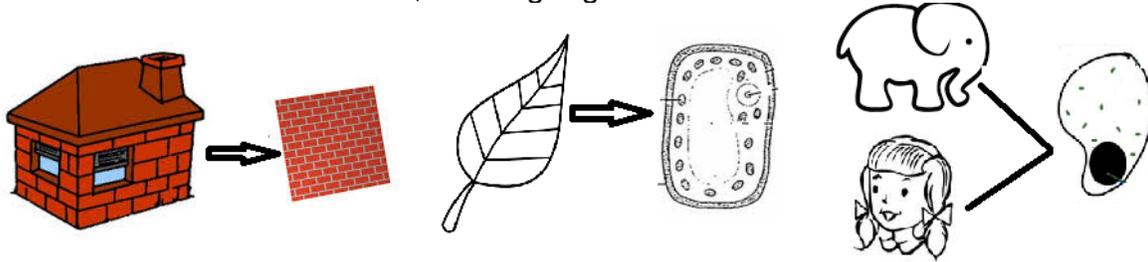


CELL- THE STRUCTURAL AND FUNCTIONAL UNIT OF LIFE

- The cell is the structural and functional unit of life
- Just as a house is made of bricks, all living organisms are made of cells



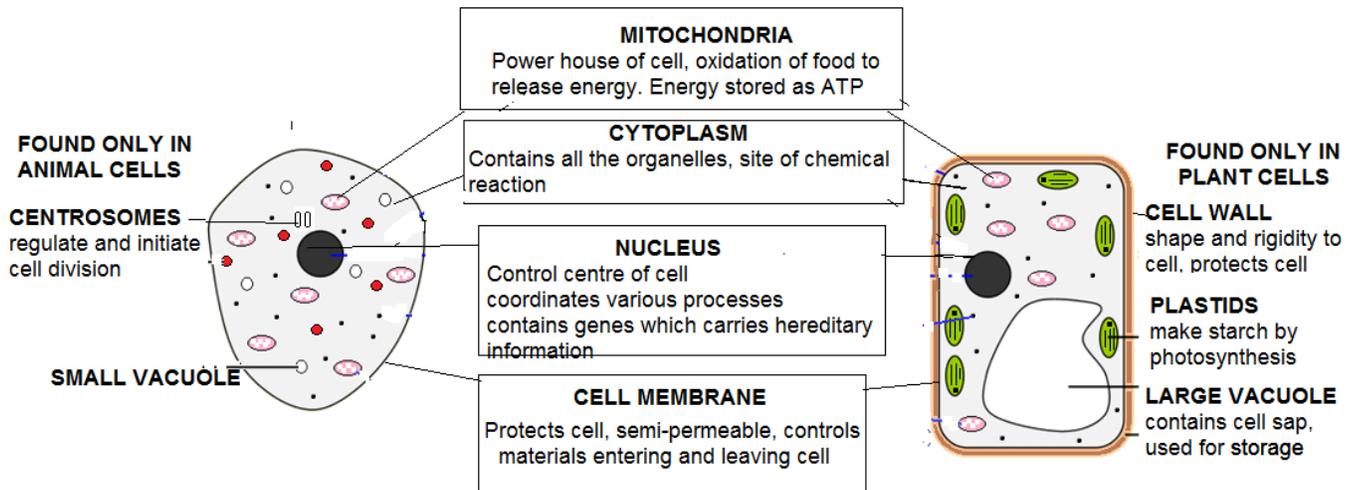
- Cells can be of different shapes and sizes



RBC nerve cell muscle cell gut lining sperm

- There are organisms made of only one cell e.g. Amoeba, Paramecium while animals, birds, insects etc. are made of thousands of cells
- However, their fundamental structure remains the same

SIMILARITIES AND DIFFERENCES BETWEEN PLANT AND ANIMAL CELL



IMPORTANCE OF CELL DIVISION

New cells must be produced for:

- Growth- all organisms begin as one cell and divide again and again to become a full sized individual
- Replacement- old and dead cells are replaced by new ones that are formed by division of parent cell
- Repair- Cuts in the skin, fracture in the bone needs repair of the cells which divide, cover the gaps and join broken ends
- Reproduction: In amoeba and bacteria, the mother cell divides to form two new individuals. In multicellular organisms, a special division occurs in reproductive organs to form sperms and eggs. These fuse to form the zygote, which divides repeatedly to form a new individual