

## Chapter 5

# THE FUNDAMENTAL UNIT OF LIFE

### Types of cells:

There are two types of cells,

1. Prokaryotic cells

2. Eukaryotic cells

#### 1. Prokaryotic cells:

Prokaryotic cells, which do not have a well-defined nuclear membrane and the nuclear material lies freely in the cytoplasm of the cell.

Ex: Bacteria, Blue green Algae

#### 2. Eukaryotic cells:

Eukaryotic cells, having Nuclear with well-defined nuclear membrane.

Ex: Plant cells, animal cells, fungal cells

| Prokaryotic cell                                            | Eukaryotic cell                                                     |
|-------------------------------------------------------------|---------------------------------------------------------------------|
| 1. Nuclear membrane is absent                               | Nuclear membrane present                                            |
| 2. Membrane bound cell organelles present                   | Membrane Bound Cell organelles is                                   |
| 3. Nucleolus is Absent                                      | Nucleolus is present                                                |
| 4. Usually unicellular                                      | Both Uni, multicellular                                             |
| 5. Cell size 1-10 $\mu$ m<br>Example:<br>Bacteria, Arachaea | Cell size 10-100 $\mu$ m<br>Example:<br>Animal cells & plant cells. |