

PROKARYOTIC vs EUKARYOTIC CELLS

PROKARYOTIC CELLS

- Small and simple
- 0.1 to 5 μm in size
- Unicellular
- Nucleus absent
- Circular DNA
- Single haploid (n) chromosome
- Lack membrane-bound organelles
- Reproduce both sexually & asexually
- Cell division by binary fission

Examples:
Bacteria & Archaea



Examples:

- Bacteria & Archaea



Bacteria & Archaea

EUKARYOTIC CELLS

- Large and complex
- 10 to 100 μm in size
- Unicellular or Multicellular
- Nucleus present
- Linear DNA
- Paired diploid ($2n$) chromosome
- Has membrane-bound organelles
- Mostly reproduce sexually
- Cell division by mitosis

Examples:
Plants, Animals & Humans



Examples:

- Plants, Animals & Humans



Plants, Animals & Humans

SIMILARITIES

- ✓ Have cell (plasma) membrane
- ✓ Have cytoplasm
- ✓ Have ribosomes
- ✓ Have DNA