

Comparing Prokaryotic cells to Eukaryotic cells

Unique to PROKARYOTES	True for BOTH	Unique to EUKARYOTES
<ul style="list-style-type: none"> >Have NO membrane-bound nucleus >Have no membrane-bound organelles >Have pili >Smaller than Eukaryotes (0.2 – 2.0 μm) >Are always unicellular >Divide by <i>binary fission</i> >Include bacteria and archaeobacteria >DNA arranged as one loop (having no histones) 	<ul style="list-style-type: none"> >DNA and RNA >Cytoplasm >Cell membrane >Cell wall >Flagella >Ribosomes 	<ul style="list-style-type: none"> >Have a membrane-bound nucleus >Cilia >Cytoskeleton >Centrioles (in animals) >Have membrane-bound organelles: <ul style="list-style-type: none"> Endoplasmic Ret. Golgi body Vacuoles Mitochondrion Plastids (in plants): <ul style="list-style-type: none"> *Chloroplasts *Chromoplasts *Leucoplasts Lysosomes >Can be unicellular, most are multicellular >Larger than Prokaryotes (10 – 100 μm) >Divide by mitosis or meiosis >DNA arranged in multiple individual strands (with histones) >Include animals, plants, fungi